An Address
ON THE
TREATMENT OF DISEASE.

BEING THE ADDRESS IN MEDICINE BEFORE THE ONTARIO MEDICAL ASSOCIATION, TORONTO, JUNE 3RD, 1909.

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I.

As true to-day as when Celsus made the remark, "The dominant view of the nature of disease controls its treatment." As is our pathology so is our practice; what the pathologist thinks to-day the physician does to-morrow. Roughly grouped there have been three great conceptions of the nature of disease. For long centuries it was believed to be the direct outcome of sin, *flagellum Dei pro peccatis mundi*, to use Cotton Mather's phrase, and the treatment was simple—a readjustment in some way of man's relation with the invisible powers, malign or benign, which had inflicted the scourge. From the thrall of this "sin and sickness" view man has escaped so far as no longer, at least in Anglo-Saxon communities, to have a proper saint for each infirmity. Against this strong bias towards the supernatural even the wisdom of Solomon could not prevail; was not the great book of his writings which contained medicine for all manner of diseases and lay open for the people to read as they came into the temple removed by Hezekiah lest out of confidence in remedies they should neglect their duty in calling and relying upon God? And the modern book of reason, which lies open to all, is read only by a few in the more civilized countries. The vast majority are happy in the childlike faith of the childhood of the world. I am told that annually more people seek help at the shrine of Ste. Anne de Beaupré, in the Province of Quebec, than at all the hospitals of the Dominion of Canada. How touching at Rome to see the simple trust of the poor in some popular Madonna, such as the Madonna del Parto! It lends a glow to the cold and repellent formalism of the churches. In all matters relating to disease credulity remains a permanent fact, uninfluenced by civilization or education.

From Hippocrates to Hunter the treatment of disease was one long traffic in hypotheses; variants at different periods of the doctrine of the four humours, as dominated by some strong mind in active revolt it would undergo temporary alteration. The peccant humours were removed by purging, bleeding, or sweating, and until the early years of the nineteenth century there was very little change in the details. To a very definite but entirely erroneous pathology was added a treatment most rational in every respect, had the pathology been correct! The practice of the early part of the last century differed very little from that which prevailed in the days of Sydenham, except, perhaps, that our grandfathers were, if possible, more ardent believers in the lancet.

In the past fifty years—in the memory, indeed, of some present—our conception of the nature of disease has been revolutionized, and with a recognition that its ultimate processes, whether produced by external agents or the result of modifications in the normal metabolism, are chemico-physical, we have reached a standpoint from which to approach the problems of prevention and cure in a rational way. Let me indicate briefly the directions in which the new science has transformed the old art. In the first place, the discovery of the cause of many of the great scourges has changed not only its whole aspect, but, indeed, we may say, the very outlook of humanity. No longer is our highest aim to cure, but to prevent disease; and in its career of usefulness the profession has never before had a triumph such as we have witnessed in the abolition of many fearful scourges. Great as have been the Listerian victories in surgery, they are but guerilla skirmishes, so to speak, in comparison with the Napoleonic campaigns which medicine is waging against the acute infections. These are glorious days for the race. Nothing has been seen like it on this old earth since the destroying angel stayed his hand on the threshing floor of Araunah the Jebusite. For seven years Cuba, once a pesthouse of the tropics, has been free from a scourge which has left an indelible mark in the history of the Englishman, Spaniard, and American in the New World. To-day the Canal Zone of Panama, for years the graveyard of the white man, has a death-rate as low as that in any city of the United States. In the island of Porto Rico, where many thousands have died annually of tropical anaemia, the death-rate has been cut in half by the work of Ashford and others. But, above all, the problem of life in the tropics for the white man has been solved, since malaria may now be prevented by very simple measures. These are some of the recent results of laboratory studies which have placed in our hands a power for good never before wielded by man.

Secondly, a fuller knowledge of etiology has led to a return to methods which have for their object, not so much the combating of the disease germ or of its products, as the rendering of conditions in the body unfavourable for its propagation and action. How fruitful in practical results, for example, have been the new views on tuberculosis! Not that the discovery of the bacillus itself modified immediately our treatment of the disease, but, as so often happens, a combination of circumstances was responsible for the happy revolution—the recognition of the widespread prevalence of the infection, the great frequency with which healed lesions were found, and the knowledge of the importance of the character of the tissue soil, led to the substitution of the open-air and dietetic treatment for the nauseous mixtures with which our patients were formerly drenched. We scarcely appreciate the radical change which has occurred in our views even within a few years. Contrast a recent work on tuberculosis with one published twenty-five or thirty years ago. In the latter the drug treatment takes up the larger share, while in the former it is reduced to a page or two. And it is not only in the acute infections that the use of the "non-naturals," as the old writers called them, has replaced other forms of treatment, but in diet, exercise, massage, and hydrotherapy, we are every day finding out the enormous importance of measures which too often have been used with greatest skill by those outside or on the edge of the profession.

Thirdly, the study of morbid anatomy combined with careful clinical observations has taught us to recognize our limitations, and to accept the fact that a disease itself may be incurable, and that the best we can do is to relieve symptoms and to make the patient comfortable. The relation of the profession to this group, particularly to certain chronic maladies of the nervous system, is a very delicate one. It is a hard matter, and really not often necessary (since Nature usually does it quietly and in good time), to tell a patient that he is past all hope. As Sir Thomas Browne says: "It is the hardest stone you can throw at a man to tell him that he is at the end of his tether"; and yet, put in the right way to an intelligent man it is not always cruel. Let us remember that we are the teachers, not the servants, of our patients, and we should be ready to make personal sacrifices in the cause of truth, and of loyalty to the profession. Our inconsistent attitude is, as a rule, the outcome of the circumstances that of the three factors in practice, heart, head, and pocket—to our credit, be it said, the first named is most potent. How often does the consultant find the attending physician resentful or aggrieved when told the honest truth that there is nothing further to be done for the cure of his patient! To accept a great group of maladies, against which we have never had and can scarcely ever hope to have curative measures, makes some men as sensitive as though we were ourselves responsible for their existence. These very cases are "rocks of offence" to many good fellows whose moral decline dates from the rash promise to cure. We work by wit and not by witchcraft, and while these patients have our tenderest care, and we must do what is best for the relief of their sufferings, we should not bring the art of medicine into disrepute by quack-like promises to heal, or by wire-drawn attempts at cure in what old Burton calls "continuate and inexorable maladies."

Fourthly, the new studies on the functions of organs and their perversions have led to most astonishing results in the use of the products of metabolism, which time out of mind physicians have employed as medicines. The old recipe books are full of directions for the use of parts of animals or of various secretions and excretions. Much of the humbuggery and quackery inside and outside of the profession has been concerned with some of the most

unsavoury of these materials. The seventeenth century pharmacopoeias were full of them, and in his oration at the Hunterian Society, 1902, Dr. Arthur T. Davies has given an interesting historical sketch of their use in practice. Metabolic therapy represents one of the greatest triumphs of science. The demonstration of insufficiency of the thyroid gland is a brilliant example of successful experimental inquiry, and as time has passed the good results of treatment in suitable cases have become more and more evident. Before long, no doubt, we shall be able to meet, in the same happy way, the perverted functions which lead to such diseases as exophthalmic goitre, Addison's disease, and acromegaly; and as our knowledge of the pancreatic function and carbo-hydrate metabolism becomes more accurate we shall probably be able to place the treatment of diabetes on a sure foundation. And it is not only on the organic side that progress has been made. Important discoveries relating to the metabolism of the inorganic constituents, such as those relative to acidosis, have opened a new and most hopeful chapter in scientific medicine.

But the best of human effort is flecked and stained with weakness, and even the casual observer may note dark shadows in the bright picture. Organotherapy illustrates at once one of the great triumphs of science and the very apotheosis of charlatanry. One is almost ashamed to speak in the same breath of the credulousness and cupidity by which even the strong in intellect and the rich in experience have been carried off in a flood of pseudo-science. This has ever been a difficulty in the profession. The art is very apt to outrun or over-ride the science and play the master where the true rôle is that of the servant.

And, lastly, we have advanced firmly along a new road in the treatment of diseases due to specific micro-organisms, with the toxic products of which we are learning to cope successfully. The treatment with anti-toxins and bacterial vaccines, so successfully started, bears out the truth of that keen comment of Celsus: "He will treat the disease properly whom the first origin of the cause has not deceived." We are still far from the goal in some of the most important and fatal infections, but any one acquainted in even slight measure with the progress of the past ten years cannot but have confidence in the future. Considering that the generation is still active which opened the whole question, we cannot but feel hopeful in spite of disappointments here and failures there. But in our pride of progress let us remember cancer and pneumonia. The history of the latter disease affords a good illustration of the truth of the remark of Celsus with which I began this address. Year by year the lesson of pneumonia is a lesson of humility. For purposes of comparison statistics are not available, but it is not likely that the great masters from Galen to Grisolle lost a larger number of cases than we do. Pneumonia has always been, as to-day, a dreaded and a fatal disease. For one thing let us be thankful. We have had the courage to abandon the expectorant mixtures, the depressants, the cardiac sedatives, the blisters, the emetics, the resulsives, the purges, the poultices, and, to a great extent, the bleedings. Surely our forefathers must have killed some patients by the appalling ferocity of their treatment, or to have stood it the constitutions of those days must have been more robust. We still await, but await in hope, the work that will remove the reproach of the mortality bills in this disease. I say reproach because we really feel it, and yet not justly, for who made us responsible for its benign or malignant nature? We can relieve symptoms, but we must find the means which will, on the one hand, limit the extension of the process, loosen the exudate, minimize the fluxion, control the alveolar diapedesis, and, on the other hand, diminish the output of the toxins, neutralize those in circulation, or strengthen the opsonic power of the blood. But some one will say, Is this all your science has to tell us? Is this the outcome of decades of good clinical work, of patient study of the disease, of anxious trial in such good faith of so many drugs? Give us back the childlike trust of the fathers in antimony and in the lancet rather than this cold nihilism. Not at all! Let us accept the truth, however unpleasant it may be, and with the death-rate staring us in the face, let us not be deceived with vain fancies. Not alone in pneumonia, but in the treatment of certain other diseases do we need a stern, iconoclastic spirit which leads, not to nihilism, but to an active scepticism—not the passive scepticism born of despair, but the active scepticism born of a knowledge that recognizes its limitations and knows full well that only in this attitude of mind can true progress be made. There are those among us who will live to see a true treatment of pneumonia; we are beginning to learn the conditions of its prevalence, it may yet come within the list of preventable diseases, and let us hope that before long we may be able to cope with the products of the pneumococcus itself.

II.

Along these five lines the modern conception of the nature of disease has radically altered our practice. The personal interest which we take in our fellow creatures is apt to breed a sense of superiority to their failings, and we are ready to forget that we ourselves, singularly human, illustrate many of the common weaknesses which we condemn in them. In no way is this more striking than in the careless credulity we display in some matters relating to the treatment of disease. The other day the *Times* had an editorial upon a remark of Bernard Shaw that the cleverest man will believe anything he wishes to believe, in spite of all the facts and textbooks in the world. We are at the mercy of our wills much more than of our intellect in the formation of our beliefs, which we adopt in a lazy, haphazard way, without taking much trouble to inquire into their foundation. But I am not going to discuss, were I able, this Shavian philosophy, but it will serve as an introduction to a few remarks on the Nemesis of Faith which in all ages readily overtakes doctors and the public alike. Without trust, without confidence, without faith in himself, in his tools, in his fellow men, no man works successfully or happily. For us, however, it must never be the blind unquestioning trust of the devotee, but the confidence of the inquiring spirit that would prove all things. But it is so much easier to believe than to doubt, for doubt connotes thinking and the expenditure of energy, and often the disruption of the *status quo*. And then we doctors have always been a simple, trusting folk! Did we not believe Galen implicitly for 1,500 years and Hippocrates for more than 2,000? To have the placid faith of the simple believer, instead of the fighting faith of the aggressive doubter, has ever been our besetting sin in the matter of treatment.

In the progress of knowledge each generation has a double labour—to escape from the intellectual thralls of the one from which it has emerged and to forge anew its own fetters. Upon us whose work lay in the last quarter of the nineteenth century fell the great struggle with that many-headed monster, Polypharmacy—not the true polypharmacy which is the skilful combination of remedies, but the giving of many—the practice of at once discharging a heavily-loaded prescription at every malady, or at every symptom of it. Much has been done and an extraordinary change has come over the profession, but it has not been a fight to the finish. Many were lukewarm; others found it difficult to speak without giving offence in quarters where on other grounds respect and esteem were due. As an enemy to indiscriminate drugging, I have often been branded as a therapeutic nihilist. That I should even venture to speak on the subject calls to mind what Professor Peabody, of Harvard, remarked about Jacob Bigelow, that, "for his professorship of Materia Medica he had very much the same qualifications that a learned unbeliever might have for a professorship of Christian theology. No other man of his time had so little faith in drugs." I bore this reproach cheerfully, coming, as I knew it did, from men who did not appreciate the difference between the giving of medicines and the treatment of disease, moreover it was for the galled jade to wince, my withers were unwrung. The heavy hands of the great Arabians grow lighter in each generation. Though dead, Avicenna and Mesue still speak, not only in the Arabic signs which we use but in the combinations and multiplicity of the constituents of too many of our prescriptions. We are fortunately getting rid of routine practice in the use of drugs. How many of us now prescribe an emetic? And yet that shrewd old man, Nathanial Chapman, who graced the profession of Philadelphia for so long, used to say: "Everything else I have written may disappear, but my chapter on emetics will last"! How much less now does habit

control our practice in the use of expectorants? The blind faith which some men have in medicines illustrates too often the greatest of all human capacities—the capacity for self-deception. One special advantage of the sceptical attitude of mind is that a man is never vexed to find that after all he has been in the wrong. It is an old story that a man may practise medicine successfully with a very few drugs. Locke had noticed this, probably in the hands of his friend Sydenham, since he says: "You cnnnot imagine how far a little observation carefully made by a man not tied up to the four humours . . . would carry a man in the curing of diseases, though very stubborn and dangerous, and that with very little and common things and almost no medicine at all." Boerhaave commented upon this truth in a remark of Sydenham "that a person well skilled in cases seldom needs remedies." The study of the action of drugs, always beset with difficulties, is rapidly passing from the empirical stage, and this generation may expect to see the results of studies which have already been most promising. It is very important that our young men should get oriented early in this matter of drug treatment. Our teachers used to send us to the works of Forbes (*Nature and Art in the Treatment of Diseases*) and to Jacob Bigelow (*Nature and Disease*) for clear views on the subject. A book has been written by Dr. Harrington Sainsbury, the well-known London physician and teacher (*Principia Therapeutica*, Methuen), which deals with these problems in the same philosophic manner. It opens with a delightful dialogue between the pathologist and the physician. He lays his finger on the weak point of the pure morbid anatomist who thinks of the lesion only, and not enough of the function which even a seriously damaged organ may be able to carry on. The book should be in the hands of every practitioner and senior student. Some of you may have heard of the lecture-room motto of that distinguished pathologist and surgeon, and the first systematic writer on morbid anatomy in the United States, S. D. Gross: "Principles, gentlemen, principles! principles!!" And it is upon these fundamental aspects that Dr. Sainsbury dwells in his most suggestive work, which I would like to see adopted as a textbook in every medical school in the land.

And we are yet far too credulous and supine in another very important matter. Each generation has its therapeutic vagaries, the outcome, as a rule, of attempts to put prematurely into practice theoretical conceptions of disease. As members of a free profession we are expected to do our own thinking; and yet the literature that comes to us daily indicates a thraldom not less dangerous than the polypharmacy from which we are escaping. I allude to the specious and seductive pamphlets and reports sent out by the pharmaceutical houses, large and small. We owe a deep debt to the modern manufacturing pharmacist, who has given us pleasant and potent medicines in the place of the nauseous and weak mixtures; and such firms as Parke, Davis and Company of the United States, and Burroughs and Wellcome of England, have been pioneers in the science of pharmacology. But even the best are not guiltless of exploiting in the profession the products of a pseudo-science. Let me specify three items in which I think the manufacturing pharmacists have gone beyond their limit and are trading on the credulity of the profession to the great detriment of the public. The length to which organotherapy has extended (not so much on this side of the water as on the European continent) beyond the legitimate use of certain preparations is a notorious illustration of the ease with which theoretical views place us in a false position. Because thyroid extract cures myxoedema and adrenalin has a powerful action, it has been taken almost for granted that the extract of every organ is a specific against the diseases that affect it. This forcing of a scientific position is most hurtful, and I have known an investigator hesitate to publish results lest they should be misapplied in practice. The literature on the subject issued by reputable houses indicates, on the one hand, the pseudo-science upon which a business may be built up, and, on the other, the weak-minded state of the profession on whose credulity these firms trade. A second most reprehensible feature is the laudatory character of literature describing the preparations which they manufacture. Foisted upon an innocent practitioner by a travelling Autolycus, the preparation is used successfully, say, in six cases of amenorrhoea; very soon a report appears in a medical journal, and a few weeks later this report is sent broadcast with the auriferous leaflets of the firm. A day or two before I left England a pamphlet came from X. and Co., characterized by brazen therapeutic impudence, and indicating a supreme indifference to anything that could be called intelligence on the part of the recipients. That these firms have the audacity to issue such trash indicates the state of thraldom in which they regard us. And I would protest against the usurpation on the part of these men of our functions as teachers. Why, for example, should Y. and Co. write as if they were directors of large genito-urinary clinics instead of manufacturing pharmacists? It is none of their business what is the best treatment for gonorrhoea—by what possibility could they ever know it, and why should their literature pretend to the combined wisdom of Neisser and Guyon? What right have Z. and Co. to send on a card directions for the treatment of anaemia and dyspepsia, about which subjects they know as much as an unborn babe, and, if they stick to their legitimate business, about the same opportunity of getting information? For years the profession has been exploited in this way, until the evil has become unbearable, and we need as active a crusade against pseudo-science in the profession as has been waged of late against the use of quack medicines by the public. We have been altogether too submissive and have gradually allowed those who should be our willing helpers to dictate terms and to play the rôle of masters. Far too large a section of the treatment of disease is to-day controlled by the big manufacturing pharmacists, who have enslaved us in a plausible pseudo-science. The remedy is obvious: give our students a first-hand acquaintance with disease, and give them a thorough practical knowledge of the great drugs, and we will send out independent, clear-headed, cautious practitioners who will do their own thinking and be no longer at the mercy of a meretricious literature which has sapped our independence.

Having confessed some of our own weaknesses, I may with better grace approach the burning question of the day in the matter of treatment. An influenza-like outbreak of faith healing seems to have the public of the American continent in its grip. It is an old story, the oldest, indeed, in our history, and one in which we have a strong hereditary interest, since scientific medicine took its origin in a system of faith healing beside which all our modern attempts are feeble imitations. Lincoln's favourite poem, beginning "We think the same thoughts that our fathers have thought," expresses a tendency in the human mind to run in circles. Once or twice in each century the serpent entwining the staff of Æsculapius gets restless, untwists, and in his gambols swallows his tail, and at once in full circle back upon us come old thoughts and old practices, which for a time dominate alike doctors and laity. As a profession we took origin in the cult of Æsculapius, the gracious son of Apollo, whose temples, widespread over the Greek and Roman world, were at once magnificent shrines and hospitals, with which in beauty and extent our modern institutions are not to be compared. Amid lovely surroundings, chosen for their salubrity, connected usually with famous springs, they were the sanatoriums of the ancient world. The ritual of the cure is well known, and has been beautifully described by Pater in *Marius the Epicurean*. Faith in the god, suggestion, the temple sleep and the interpretation of its dream were the important factors. Hygienic and other measures were also used, and in the guild of secular physicians which grew up about the temples scientific medicine took its origin. No cult resisted so long the progress of Christianity; and so imbued were the people with its value, that many of the practices of the temple were carried on into the Christian ritual. The temple sleep and the interpretation of its dreams were continued long into the Middle Ages, and, indeed, have not yet disappeared. The popular shrines of the Catholic Church to-day are in some ways the direct descendants of this Æsculapian cult, and the cures and votive offerings at Lourdes and Ste. Anne are in every way analogous to those of Epidaurus.

As I before remarked, credulity in matters relating to disease remains a permanent fact in our history, uninfluenced by education. But let us not be too hard on poor

human nature. Even Pericles, most sensible of men, when on his deathbed, allowed the women to put an amulet about his neck. And which one of us, brought up from childhood to invoke the aid of the saints and to seek their help—which one of us under these circumstances, living to-day in or near Rome, if a dear child were sick unto death, would not send for the Santo Bambino, the Holy Doll of the Church of Ara Coeli? Has it not been working miracles these four hundred years? The votive offerings of gold and of gems from the happy parents cover it completely, and about it are grateful letters from its patients in all parts of the world. No doll so famous, no doll so precious! No wonder it goes upon its ministry of healing in a carriage and pair, and with two priests as its companions! Precious perquisite of the race, as it has been called, with all its dark and terrible record, credulity has perhaps the credit balance on its side in the consolation afforded the pious souls of all ages and of all climes, who have let down anchors of faith into the vast sea of superstition. We drink it in with our mother's milk, and that is indeed an even-balanced soul without some tincture. We must acknowledge its potency to-day as effective among the most civilized people, the people with whom education is the most widely spread, yet who absorb with wholesale credulity delusions as childish as any that have ever enslaved the mind of man.

Having recently had to look over a large literature on the subject of mental healing, ancient and modern, for a new edition of my textbook, just issued, I have tried to put the matter as succinctly as possible. In all ages and in all climes the prayer of faith has saved a certain number of the sick. The essentials are first a strong and hopeful belief in a dominant personality, who has varied naturally in different countries and in different ages. Buddha in India, and in Japan, where there are cults to match every recent vagary; Æsculapius in ancient Greece and Rome; our Saviour and a host of saints in Christian communities; and lastly, an ordinary doctor has served the purpose of common humanity very well. Faith is the most precious asset in our stock in trade. Once lost, how long does a doctor keep his *clientèle*? Secondly, certain accessories—a shrine, a grotto, a church, a temple, a hospital, a sanatorium—surroundings that will impress favourably the imagination of the patient. Thirdly, suggestion in one of its varied forms—whether the negation of disease and pain, the simple trust in Christ of the Peculiar People, or the sweet reasonableness of the psycho-therapeutist. But there must be the will-to-believe attitude of mind, the mental receptiveness—in a word, the *faith* which has made bread pills famous in the history of medicine. We must, however, recognize the limitations of mental healing. Potent as is the influence of the mind on the body, and many as are the miracle-like cures which may be worked, all are in functional disorders, and we know only too well that nowadays the prayer of faith neither sets a broken thigh nor checks an epidemic of typhoid fever.

What should be the attitude of the clergy, many of whom have been drawn into the vortex of this movement? I feel it would be very much safer to hand over this problem to us. It is not a burden which we should ask a hard-working and already overwrought profession to undertake or to share. It might be a different matter if it were really a gift of healing in the apostolic sense, but we know this was associated with other signs and wonders at present conspicuous by their absence. Then think of the possibilities for self-deception—of the saintly Edward Irving and the gift of tongues; of Monsieur de Paris, the French priest, and the miracles at his tomb, to the truth of which two fine quarto volumes, with "before and after" pictures, attest! The less the clergy have to do with the bodily complaints of neurasthenic and hysterical persons the better for their peace of mind and for the reputation of the Cloth. As wise old Fuller remarked, Circe and Æsculapius were brother and sister, and the wiles of the one are very apt to entrap the wisdom of the other.

III.

It adds immensely to the interest in life to live in the midst of these problems which concern us so closely. We must meet them with an intelligent cheerfulness, in the full confidence that the Angel of Bethesda never stirred the waters without happy results. It is for us to see that the soldiers we are training for the fight against disease, bodily and mental, are well equipped for the battle; and let me briefly, in conclusion, indicate how I believe we should teach the art—the management of patients and the cure of disease. To know how to deal with disease is the final goal, to reach which the whole energies of the student should be directed. We all recognize that it is in the out-patient departments and in the wards—I wish I could add in the homes of the general practitioners—that he must get this part of his training, not in an elaborate course of lectures on the properties and action of drugs. In the congested curriculum it is by no means easy to find the proper amount of time even for this, the most essential part of his education. But as we learn the futility of the lecture room as an instrument of teaching men the Art, so, I think, we shall gradually be able to adapt the courses so that plenty of time may be given to the practical study of the treatment of cases under skilled direction. We should take over to the hospital side of the school the whole subject known in the curriculum as therapeutics. The composition of drugs, the method of their preparation, and the study of their physiological action should be taught in practical classes in the pharmaceutical laboratories. In the out-patient departments and in the wards much more systematic practical instruction should be given how to treat disease and how to manage patients. If we could only get the students for a sufficiently long period in the hospital, what helpful courses could be arranged in the senior years! Certain aspects of the subject must be ever kept before the assistants* and the students, considered, perhaps, by different men associated with the clinic according to the special capacity of each one. The fundamental law should be ingrained that the starting point of all treatment is in the knowledge of the natural history of a disease. Typhoid fever, tuberculosis, pneumonia, and, where possible, malaria, should be used for this important lesson, and in the everyday routine observation of cases the student would learn to know the course of the disease, its obvious features, the complications likely to arise; and he would be taught how to discriminate between the important and the unimportant symptoms of a case. This work should form the very basis of his course in medicine, and it should be accompanied by a *seminar* to take the place of set lectures, in which the features of all the common diseases would be discussed.

The hygienic and dietetic management of patients has now come to be such a prominent part of the work of our hospitals that the student may become acquainted with the open-air treatment, the various modifications of diet suitable to different diseases, and the use of massage, electricity, and other physical agents. But too often he is allowed to pick up this information in a haphazard, irregular fashion. One assistant of the clinic should be detailed to see that every member of the class knows, for example, how to arrange the open-air treatment for a tuberculous patient, and how to supervise the diet of a diabetic case. The student should prepare personally the various nutritive enemata, and be able to give the different kinds of massage, and I would have him thoroughly versed in all branches of hydrotherapy. A serious difficulty is that nowadays the nurse does a great many things that it is essential the medical student should know how to do—the administration of hypodermics, the giving of a cold pack, etc.

Much more attention should be paid to the important subject of psychotherapy. It is not every teacher who has a special gift for this work, but if the professor himself does not possess it, he should, at any rate, have sense enough to have an assistant familiar with and interested in the modern methods. How many of our graduates have been shown how to carry out a Weir Mitchell treatment or to treat a patient by suggestion? The student should be taught that the very environment of a well-managed clinic is in itself an important factor in psychical treatment. A Philadelphia friend once jokingly defined my practice at the Johns Hopkins Hospital as a mixture of hope and nux vomica, and the grain of truth in this statement lies in the fact that with many hospital patients once we gain their confidence and inspire them with hope, the battle is won.

* A post-graduate course in medical pedagogy would be most helpful organized by five or six of the large colleges and conducted by them in rotation with teachers selected from the different schools. Many able young fellows take years to acquire methods to which they might be introduced in a six-months course.

And lastly, from the day the student enters the hospital until graduation, he should study under skilled supervision the action of the few great drugs. Which are they? I am not going to give away my list. A story is told that James Jackson, when asked which he considered the greatest drugs, replied: "Opium, mercury, antimony, and Jesuit's bark; they were those of my teacher, Jacob Holyoke." "Yes," replied his interlocutor, "and they were those of Holyoke's master, James Douglas, in the early part of the eighteenth century." Mine is a much longer one! The student should follow most carefully the action of those drugs the pharmacology of which he has worked out in the laboratory. He should be sent out from the hospital knowing thoroughly how to administer ether and chloroform. He should know how to handle the various preparations of opium. Each ward should have its little case with the various preparations of the ten or twelve great drugs, and when the teacher talks about them he should be able to show the preparations. He should study with special care the action of digitalis on the circulation in cases of heart disease. He should know its literature, from Withering to Cushney. It should be taken as the typical drug for the study of the history of therapeutics—the popular phase, as illustrated by the old woman who with it cured the Principal of Brasenose; the empirical stage, introduced by Withering in his splendid contribution, a model of careful clinical work of which every senior student should know; and the last stage, the scientific study of the drug, which he will already have made in the pharmacological laboratory. He should day after day personally give a syphilitic baby inunctions of mercury; he should give deep injections of calomel, and he should learn the history of the drug from Paracelsus to Fournier. He should know everything relating to the iodides and the bromides, and should present definite reports on cases in which he has used them. He must know the use of the important purgatives, and he should have a thorough acquaintance with all forms of enemata. He should know cinchona historically, its derivatives chemically, and its action practically. He should study the action of the nitrites with the blood pressure apparatus, and he should over and over again have tested for himself the action, or the absence of action, of strychnine, alcohol, and other drugs supposed to have a stimulating action on the heart and blood vessels. While I would, on the one hand, imbue him with the firmest faith in a few drugs, "the friends he has and their adoption tried," on the other hand, I would encourage him in a keenly sceptical attitude towards the pharmacopoeia as a whole, ever remembering Benjamin Franklin's shrewd remark that "he is the best doctor who knows the worthlessness of the most medicines." You may well say this is a heavy contract and one which it is impossible to carry out. Perhaps it is with our present arrangements, but this is the sort of work which the medical student has a right to expect, and this is what we shall be able to give him when in his senior years we give up lecturing him to death, and when we stop trying to teach him too many subjects.

THE report for 1907–8 of the Bureau of Health for the Philippine Islands, drawn up by Dr. Victor Heiser, contains a number of notes on tropical disease, and accounts of the progress which is being made in numerous directions. The foundations of a thoroughly sound sanitary system seem now to have been laid, but the task of the bureau is still one of immense difficulty. Elsewhere the machinery by which the health of a nation is safeguarded grows up slowly, but in this as in other tropical countries it has had to be created *de novo*. Last year a million and three-quarter vaccinations were performed, despite the preaching of an antivaccination band; perhaps the fact that such small-pox as occurred was of unusual severity helped the authorities. Usually this disease is comparatively mild among Filipinos, the case mortality ranging between 5 and 10 per cent., but in the year in question it ran up in some places to 50 per cent. No very great difficulty is being experienced in dealing with the opium habit, though at one time it seemed likely to be replaced by cocainism; nor are the difficulties in the way of segregating lepers proving insuperable. A good many of those first interned have been released, their maladies not proving to be leprosy. Experiments with the *x*-ray treatment of the disease are being continued, 1 out of the 30 cases being apparently cured and 5 markedly improved.

An Address

ENTITLED

"HERCULES AND THE WAGONER,"

WITH REMARKS ON THE BRITISH MEDICAL ASSOCIATION.

DELIVERED BEFORE THE SOUTH WALES AND MONMOUTHSHIRE BRANCH.

BY D. J. WILLIAMS, F.R.C.S.,

PRESIDENT.

As a countryman was driving his wagon along a miry lane, his wheels stuck so deep in the clay that his horse came to a standstill. Upon this the man, without making any effort of his own, began to call upon Hercules to come and help him out of his trouble. But Hercules bade him lay his shoulder to the wheel, assuring him that Heaven only aided those who tried to help themselves.—*Æsop's Fables.*

GENTLEMEN,—In the first place permit me to thank you for the honour you have conferred on me by electing me your President for the forthcoming year.

In looking round for an appropriate subject for an address, I have finally decided to utilize the short time at my disposal to consider some aspects of professional life which appear to me of vital importance to the members of our Association as well as to the profession at large.

Doubtless you are aware that I was the first chairman of that most useful and active committee formed in our Branch some three or four years ago to oppose the unfair and unjust conditions that were being imposed on some of our members by powerful combinations of labour. I allude to the Contract Practice Committee.

Not only have I had personal experience of such practice for a large number of years, but as chairman of this committee I became intimately acquainted with the various disputes in our Branch, from Ebbw Vale to far-off St. David's and Aberystwith.

Contract practice seems to be a necessity in most places where large industrial populations are congregated together, as in our colliery and manufacturing towns and villages. But what I wish to insist upon is that the conditions of employment should be such as will enable the medical man to perform his duties to his patients to the best of his abilities, unhampered by considerations of economy in drugs or appliances, unhampered also by self-constituted committees who dole out an inadequate salary that does not remain unsweated in passing through their hands. In some districts where the amount deducted from the workman may be adequate, only a portion reaches the medical attendant. In other districts the amount deducted is so small as to be absolutely inadequate for the medical attendance upon the employees.

In my opinion the patient has a right to expect from the doctor he consults the best services, as regards skill, care, and appliances, he is capable of, and *nothing less*.

Now is it possible for a medical man, with a good knowledge of his profession, to discharge his duties in this satisfactory manner at the rate of remuneration which prevails in large districts in our Branch? Such a question can only be answered by a very emphatic negative.

For my own guidance in this matter, I have kept a strict account for some lengthened periods of the services, personally or by deputy, rendered to the employees of a large industrial concern, including a very large number of surgical operations. It works out at something less than 6d. an attendance, though some of the employees earn 25s. to 30s. a day. I am sometimes pleased to remind some of these exacting people that I have never smoked a cigarette out of their contributions, and that they have had them all back. Then, you will ask, why attend them? My reply is that they supply the place of an honorary surgeoncy to a hospital, and that the experience has been essential to my practice.

I must apologize to those of our members who are not engaged in this class of practice if I have to deal somewhat elaborately with this matter; but it must be insisted on that the bulk of the professional work done in the great industrial centres in our Branch is by contract.

Besides this inadequate remuneration, I have already alluded to the conditions of employment. During recent years an endeavour has been made on the part of strong combinations and organizations of workmen to render the lot of the doctor intolerable by the establishment of so-called "schemes." Ogilvie gives as synonyms for *scheme* "plan, project, design, purpose, devise, plot, contrive." In its application to our professional work, we may take *scheme* as meaning a contriving or plotting to get the utmost service from professional men at the lowest remuneration for which such services can be secured. If you wish to see what schemes in this sense mean, we have a classsical example before us in a notorious district in South Wales—namely, Ebbw Vale.

I mention this instance here because the conditions of employment the scheme would impose are printed in black and white, which is some advantage were it only that it exhibits the attitude adopted by the working man (in combination, of course) towards the hapless doctor who labours in such districts. He is to be paid by salary having no relation to the amount that may be deducted from his patients' wages or the amount of work he does; he is to have an assistant, but the "scheme" elects him and the "scheme" dismisses him, the principal having practically no control over him. The surgeon must have no private practice, and tradespeople are to be invited to pay the scheme committee at a certain rate, the doctor to have no further emolument for the increase of work thus involved; there is no provision for payment of salary during strikes or stoppages. The salary is, of course, so small that it precludes the possibility of the doctor making provision for a holiday, much less for his family, or for his declining years should he haply outlive his active period of work under such miserable conditions.

How any self-respecting man can accept service under such dishonourable conditions and restraints is to me incomprehensible. Of course if men can be found so invertebrate and so regardless of their own self-respect, not to speak of their professional honour, as to accept service under such conditions, no association or combination of associations can alter their lot.

This Ebbw Vale dispute was far advanced before the establishment of the Contract Practice Committee, and all but settled on the scheme's terms. Since the advent of the Association on the scene much has been done to alter the conditions of employment towards betterment. It is to be deeply regretted that the Association was not earlier in possession of the terms intended to be enforced on some of its members, but its action since accentuates to the full the power of the Association in similar struggles in the future. We have at any rate placed the issues before the medical public so clearly that no self-respecting member of our profession can apply for such ill-requited and such dishonourable service.

What is the remedy for the present and future of such attempted encroachment on our remuneration and on those honourable conditions of service which will alone enable medical men to do their work effectually? The British Medical Association can and is doing much, as I will show later on; but the remedy has to do primarily with ourselves, collectively and individually.

Who would be free, themselves must strike the blow,

is as true to-day as it was in Greece, groaning under Turkish tyranny.

Is the suggestion too idealistic and impracticable that medical men in our Branch should first of all sink petty differences among themselves and one and all form an organization powerful enough to meet opposing organizations; take a leaf out of the book of the latter, and establish what may be called a minimum rate, based on poundage, below which no medical man can accept service in such appointments? There is much to be said for it. Primarily, of course, each Division of the Branch must initiate the movement, but no one Division can succeed when a neighbouring Division is inert. The South-West Wales Division is not likely to succeed, for instance, in getting more than the 1s. a month now paid when we are twitted with the statement that medical men in Swansea are satisfied with 8d. Personally I would suggest a poundage of 3d. An eightieth part of a man's income, be he rich or poor, is not too much to set aside for medical attendance by way of insurance against illness and accident, not for himself alone, but for his wife and children under 14. This arrangement has the advantage of not pressing heavily on the small-wage-earning labourer, while it makes the skilled worker pay in accordance with his higher rate of pay. This, however, is not an occasion to elaborate a plan for bringing about this improved rate.

I will only suggest a comparison of the state of things thirty years ago, when a pocket case, an amputating case, a pound or two of lint, and a supply of linseed meal, represented the usual armamentarium of the surgeon; and the present-day requirements for antiseptic surgery and the antitoxin treatment of diseases, from diphtheria to tetanus, not to speak of opsonic treatment. The task of making out our case presents no difficulties, and the increase suggested is only right, just, and equitable both for our patients and for ourselves. The men will have to be convinced of the fairness of the increase asked for, but the only real difficulty lies within the profession itself.

Looking back with the mind's eye for the last thirty years, I cannot help being impressed with the enormous improvements made in the lot of the working man. How generously successive Governments have repaid him for his vote! One of the most beneficial Acts, the Compensation Act, is giving the medical man a great increase of work and responsibility, without increased remuneration. Holding appointments from the working man and at his pleasure, it is often difficult not to be biassed in his favour. It has been my experience to be supplanted in an appointment because I could not give evidence in favour of a malingerer.

There is also the Old Age Pensions Act, which, however, has little to do with the medical man, but the working man has promises of an Unemployed Bill and a Right to Work Bill.

Again, how vastly enhanced has been the wage-earning capacity of the working man, brought about by the agency of his powerful unions! It is a pleasure to record the good use the vast majority make of their money; they are becoming better educated, have a higher place in the social scale, and higher ideals of life. There are many among the workmen I attend whom I would not hesitate to rank as friends. But the rate of payment he makes for my services is so ridiculously low that a gentleman, at one time assisting me, declined to remain because he objected to attend people at a shilling a month, living in such fine houses and so well circumstanced, who earned higher wages than he himself earned by way of salary. His argument was unanswerable.

Have we as a profession moved proportionately on the road of well-being? In the quality of our work we certainly have, but not in the remuneration for our services, and to my mind the remedy is perfectly obvious. Under the best conditions the amount of work involved in these appointments is enormous; in some cases I know sixty or eighty visits have to be paid daily. I am and have been a somewhat hard worker myself, but after I have seen about forty patients in the course of the day, my jaded mind could not do justice to so large a number as I have indicated.

I would ask those of our members who are more fortunately situated, and particularly those who specialize, to consider the life of a young medical man who resides in a possibly isolated and essentially industrial district, out of touch with his professional *confrères*, with no opportunities for social relaxation with men of his own station in life; harassed and overworked with a long list of patients of varying gravity; an obstetric conundrum or two; possibly an amputation in a cottage without any hospital equipment. Our judgement must not be too critical.

To myself, at any rate, it is marvellous how well the work is done, but—and here's the rub—it is work which soon burns the enthusiasm out of any man, health suffers, and life becomes all but intolerable. Into this state of things introduce the modern invention of schemes and sweating, and the doctor becomes a victim to unfair and impossible conditions, and cannot discharge his duties with pleasure to himself or, indeed, profit to his patients. Work of such kind becomes drudgery, perhaps ill done because it cannot be done with that enthusiasm and "joy of working," as Kipling calls it, which is essential to all good work.

It is the product of such conditions of work, who are finally discharged, that constitute the principal part of the

flotsam and jetsam of the profession, who disregard warning notices and give trouble in the work of the Contract Practice Committee in various districts. During my connexion with the Contract Practice Committee, a picture was given of the conditions of work in a scheme surgery during an evening consultation. Sundry members of the scheme committee—smoking, talking, and spitting—attend in the waiting room, while their nominee was attending to the patients behind a screen. Is there not something demoralizing in the very thought of it?

It is all very well to laud the nobility of our profession, but that members of it should submit to such conditions of work, should be so unmindful of the honour of the profession to which they belong—not to speak of the respect due to themselves—has often made me despair of the betterment of such conditions.

The profession is honourable because the men who have belonged to it in this and past ages have made it so. May it be our lot, individually and collectively, to preserve its honour!

In our individualistic and isolated positions all the members of the profession are liable to be squeezed. I understand that the teaching fraternity have combined to secure consultations from some of the leaders of the profession in surgery, medicine, gynaecology, and all the other ologies for a mitigated fee, and have succeeded. Such weak-kneed submission to the powers of combination, in such a quarter, seems to me most deplorable.

To the want of combination and competition within the profession I attribute the ridiculously small salaries paid by boards of guardians, county councils, and other bodies to their officers. In my experience the payments made for Poor Law appointments are absolutely inadequate.

Not a year ago there was a great scramble for the appointments given in the county council schools. The members were canvassed as if the appointments were a very rich plum indeed. I was very much amused at one meeting of our Division, when our agenda had reference to the increased fees for life insurance, suggesting the raising of the fee from half a guinea to a guinea for proposals of £100 and over and to two guineas for £500 and over, while on the same paper the fee of a shilling was suggested for the examination of each child in the county schools, and accepted. On looking at the list of details required in the school form and the journeys involved to the respective schools, the two proposals seemed so much at variance that it was found scarcely consistent to move the resolution as to the advisability of the increase of the insurance fee. I have no doubt the half-guinea fee for £100 is still accepted!

Again, many schemes of sickness and accident insurance companies have sought favour during recent years, and the medical man's services to report on all claimants is a necessity. The fees offered are only 6d. or 1s., but it is pointed out that the doctor will be well repaid by the opportunity it will clearly afford him of securing an enlarged *clientèle*—of course, by robbing some one's hen roost. I would advise our young members to give these proposals a wide berth, as they not only endeavour to sweat and demoralize the doctor, but fail to benefit the assured.

In the matter of benefit societies—Foresters, Oddfellows, and others—I have had no experience, but I would like to compliment the medical men of Swansea on the result of their stand some years ago for better pay; there is, however, one rule—that about a wage limit—which should be strictly imposed, but is, I understand, "more honoured in the breach than in the observance."

Not long ago a medical man attended the members of a benefit society at the rate of 2s. 6d. a year; one of them died, leaving an estate valued at £10,000. The medical man himself died shortly after, overworked by much such precariously paid work. There is deep pathos, on the one hand in the almost daily, skilful, and ungrudging attendance on the part of the doctor and the contemptible meanness of the patient.

Another form of contract practice, and one which is, I think, entirely due to the folly of individual members of our profession, is the establishment of private clubs. The rate of pay is generally the same as that which prevails in that district in the large industrial appointments. The clerks have combined for small and inadequate pay in the large towns in our Branch, and I hear also that a combination of commercial travellers have secured the services of a medical man at a guinea per annum.

Many private patients of mine have offered me these terms, which I steadfastly decline, and they entrust themselves to the hands of some one else. These people are usually very well off, and could afford to pay the ordinary fees. It has often been an ethical point with me whether I should again attend them, when urgently called, without letting my *confrère* know beforehand.

An opinion has often been expressed of late years in the medical press that every medical school should provide for the senior students, and those who are about to undertake their life's work, a course of lectures on medical ethics. The father of my medical school, Sir William Jenner, was in the habit of inviting some senior students and those who were abont to practise, to his house to breakfast, and in an informal way would advise us as to our conduct in our life's work, pointing out three duties. The first duty was to our patients, the second to our profession, and the third to ourselves. The words were golden, and should abide. In general, however, no such advice is given, and our universities and examining bodies regard their duties as completed when the candidates have given evidence of possessing the standard of knowledge required to practise on His Majesty's subjects. Their interest in and care of us is at an end. The General Medical Council is the only body to keep us in the right line of professional conduct. It will not permit the use of unqualified assistants, nor can we administer an anaesthetic if an unregistered dentist wishes to enlist our services. It also takes cognizance of our existence when a charge of infamous conduct may be preferred against us.

Might it not be possible, after such a course of lectures on medical ethics as has been suggested, to get every member to swear to a kind of Hippocratic oath, extended and modified to suit modern conditions? I think it would be well for the profession.

The British Medical Association under its new constitution is endeavouring to supply this want on the lines laid down seventy-seven years ago by its founder, Sir Charles Hastings of Worcester. Dr. Hastings, as he then was, in his address at the inaugural meeting referred to the disability under which professional medical men then laboured, on account, as he suggested, of want of co-operation. They did not, he said, hold the rank and influence in the community to which they might aspire and which the Association might enable them to attain. Though its membership at this time was only 150, in his words as to the scope of the Association he foreshadowed the direction in which it should work. In the first place the advancement of medical science in every direction; in the second place the maintenance of the honour and respectability of the profession and the promotion of friendly intercourse and free communication among its members. Under this head, with regard to medical ethics, attention was drawn to the fact that with the exception of a few essays no attempt had been made to establish a code for the guidance of those needing such guidance. In a well organized profession there could be no difficulty in adapting to its exigencies the doctrines of general ethics. With regard to medical politics, attention was called to the fact that the organization of the profession which obtained, was not what it ought to be. The whole system of medical polity was both defective and erroneous.

Have we advanced very materially during the last seventy-seven years? I think we have, and the British Medical Association under its new constitution since 1901 has been better carrying out the functions foreshadowed for it by Sir Charles Hastings.

It would be absurd even to claim that its organization is perfect. It is complicated, and its literature is simply stupendous, as is to be expected when such a body is undergoing a process of evolution. Those of you who are mere members would be appalled at the amount of literature your Representatives at the Representative Meetings and the members of committees and Council have to go through, and the amount of close reading that these documents entail. At our deliberations on the Council much valuable time is wasted on what I consider trivialities, and at the Council meeting in April last I was led to remark that our Council would soon compete with our Imperial Parliament for the qualifying adjective "time-wasting."

It has always been matter of great regret that a more

general interest is not taken in the affairs of the British Medical Association by its members.

To illustrate this indifference a referendum on some most important matters was sent to 222 Divisions, representing 20,673 members, in 1907, and voting papers were sent to be filled up; 159 Divisions only replied, and only 10 per cent. of the members voted. The result of so small a number recording their votes can hardly be considered as the decisive voice of the Association, whatever way the majority voted.

Again, how many of us, for instance, could give an intelligent, much less a critical, account of the Charter which is now being petitioned for? As at present constituted, the functions of the British Medical Association are circumscribed by the laws relating to limited liability companies. It *may* not do this, it *must* not do that. Yet, notwithstanding its present limitations, it has made itself the body which successive Governments consult to obtain the opinion of the profession when legislation for the health of the people is proposed—not the General Medical Council or the Royal Colleges. To do away with the limitations I have indicated, and to enhance the position of the Association and enable it to speak with the voice of the profession behind it, is the object of the Charter.

In the petition its objects are stated under the following heads:

1. The promotion of medical and allied sciences.
2. The maintenance of the honour and the interests of the profession and of the members thereof collectively and individually.
3. The co-operation of the members of the Association for their mutual sustenance and support in all matters affecting them in their professional capacity.
4. The encouragement, promotion, or provision of means for protecting members and their families against the exigencies of age, sickness, death, or misfortune.

If the petition for the Charter be granted, these paragraphs are sufficiently wide to enable the Association to safeguard its members and promote their welfare in every legitimate way.

Among its permissive clauses I will only name the following:

To hold meetings, to provide and equip libraries for the use of members, to publish the BRITISH MEDICAL JOURNAL, and to encourage research by scholarship, etc.; it would have authority to promote, support, or oppose measures in Parliament affecting the public health or the medical profession, or the candidature of any member of the Association for Parliament.

Now is it conceivable that any medical man can be so forgetful of his own interests as to remain outside the Association when these mercies are within his reach for 25s. a year, provided he means to "play the game"?

There are in round numbers 40,000 medical men in the British Islands, and dependencies, and yet only 20 000 are members of the British Medical Association; just under 50 per cent. are not members.

In 1875 its membership was			...	6,112
In 1885	,,	,,	...	11.249
In 1895	,,	,,	...	16 000
In 1905	,,	,,	...	19,582
In 1908	,,	,,	over	21,000

In thirty years its membership has more than trebled, and I only hope that the same increase will continue during the current quinquennium. The fact remains, however, that there are, roughly speaking, 20,000 medical men who are non-members. This may be due, in part, to the mere indifference of a certain section. But there are causes within the Association itself which may, in the first place, cause defection from its ranks, and, in the next place, prevent medical men from becoming members. I will refer briefly to these causes.

Certain necessary ethical rules have been framed by the Ethical Committee appointed for that purpose for the guidance of members, and if these rules are not observed, the member's conduct may come under the consideration of the Committee.

There is, therefore, a preference on the part of some members of our profession who do not mean to toe the line, to remain outside the Association, or, having joined, to allow their subscriptions to lapse, and become free to pursue their work unhampered by such correctness of conduct as the ethical rules of the Association prescribe.

Instances of this character have unfortunately occurred in our Branch; and when the experience of such defection has been dearly bought, the individuals have sought readmission into our membership. I would only say to such that their professional lives will be infinitely pleasanter in "friendly intercourse and free communication" with members of the Association than in doing work outside its ranks as a sort of professional "pariahs."

Again, much unrest, amounting almost to disaffection from the Association, has arisen in connexion with its attitude towards the honorary physicians and surgeons to some of our large hospitals, arising mainly from the somewhat hasty use of the warning notice by the Hampstead and Marylebone Divisions concerning the appointment of the honorary staff of the Hampstead Hospital, a matter in which one of the most honoured members of our Association was concerned. To my mind the action of these Divisions was hasty and ill-considered, and the policy of the Association should be so framed as to avoid similar unfortunate contingencies in the future. Men of the highest standing in our profession, of undoubted honour and probity, should not be submitted to the indignity of defending themselves against charges ill-based, ill-considered, and in every way regrettable. As the result of this proceeding, it is understood that the members of the staff of one of the principal hospitals in London have resigned from the Association rather than submit themselves to the possibility of themselves becoming involved in any such action.

In connexion with this matter, I may refer to a proposal which has been placed before the Divisions for their consideration, to the effect that the British Medical Association should be represented on the Management Committee of our hospitals, and that the King Edward Hospital Fund for London should be requested to permit local practitioners to act on the committees for the administration of out-patient departments. It is notorious that the great hospitals are abused by patients who can well afford to pay for medical attendance, but I doubt if this proposal will mitigate the evil. It will inevitably meet with the most strenuous opposition on the part of the staff and those responsible for the administration of these institutions. The wisdom of the proposal is open to the criticism that as yet the profession, under the aegis of the Association, is not sufficiently organized to justify it, while, on the other hand, it will inevitably be a source of friction between the Association and the staffs of the hospitals in London, and result in a possible defection from our membership.

Those of you who read your JOURNAL carefully will have noticed that a vast amount of correspondence pro and con has taken place in connexion with the Referendum and the petition for the Charter. A strong body of opinion exists on both sides, and threatens a cleavage in the Association itself—perhaps not very serious.

This, I think, is the result of the limited time that can be devoted by the Council and the Annual Representative Meetings to their deliberations on these important matters.

It is hoped, at any rate, that within the Association a unanimous support will be given to the petition for the Charter.

In this connexion I would like submissively to remind some of the more turbulent and progressive members that the medical profession is as old as the centuries, and that our Association is comparatively very young. The one has its traditions and the other its aspirations, and the harmonizing of the whole is more likely to be attained by the gentle leading by means of a gossamer than by driving with scorpions.

Notwithstanding the points of difference I have alluded to, we as a profession must look to our Association as the most precious and powerful agency for the promotion of our welfare, and I hope for it a wider and more efficient future.

THE total number of students of medicine in the German universities is at present 8,918. These are distributed among the several universities as follows: Berlin, 1,162; Bonn, 370; Breslau, 359; Erlangen, 260; Freiburg, 751; Giessen, 209; Göttingen, 254; Greifswald, 178; Halle, 234; Heidelberg, 232; Jena, 271; Kiel, 490; Königsberg, 304; Leipzig, 446; Marburg, 313; Munich, 1,696; Münster, 166; Rostock, 165; Strassburg, 268; Tübingen, 300; Würzburg, 490. The number of foreign students, including those belonging to States not included in the German Empire and those of other European and non-European nationalities, is 1,091, of whom 611 are Russians.

REPORT OF A CASE OF OESOPHAGEAL DIVERTICULUM:

WITH SOME REMARKS ON THAT CONDITION.*

BY WILLIAM TAYLOR, M.B. DUB. UNIV., F.R.C.S.I.,
SURGEON TO THE MEATH HOSPITAL AND CO. DUBLIN INFIRMARY.

THE case about to be recorded is that of a condition comparatively rare—namely, an oesophageal pouch or diverticulum.

History.

A gentleman, aged 54 years, stated as follows: "About twenty years ago I observed, when taking a cold in the head, that a white substance like fat, about the size and shape of a small bean, came up out of my throat. A few years later I began to feel a slight inconvenience in swallowing food, which gradually increased. At this time a piece of meat would sometimes remain in the throat for a night without my knowing it, and would come out when in the bath in the morning. This condition continued for a number of years. During the past seven years I had very great difficulty in swallowing, especially during the last two years, during which time considerable quantities of food had to be cleared out of the throat after each meal." He told me subsequently that he often noticed if he took aperient pills at night he could bring them back into his next mouth morning.

My introduction to the patient was through Dr. Finny, by whom the patient was being treated for a severe attack of influenza and its effects upon his heart. Dr. Finny had been this gentleman's family physician for some years, and has frequently expressed the opinion of the probable existence of a pouch or diverticulum above a stricture.

Condition on Examination.

On seeing the patient in consultation with Dr. Finny and hearing the above history, several bougies were passed into the oesophagus, but none could be introduced more than about 9 in. from the teeth. Their passage caused a good deal of irritation and produced severe retching. The passage of the bougies seemed to me to become arrested from spasm of the oesophagus, rather than from encountering any other source of obstruction. Prior to passing the bougies nothing was to be detected on inspection of the neck or pharynx, nor was there any physical sign of any thoracic condition which might produce pressure upon the oesophagus. The patient was then asked to swallow a mouthful or two of water. The effort to do so was accompanied by a good deal of unpleasant gurgling about the pharynx, quite audible all over the room, and about ten to fifteen seconds subsequently the fluid could be heard through the stethoscope trickling into the stomach, but apparently only in small amount. Half a pint of water was then drunk, apparently with more ease than a single mouthful. There was no visible change or fullness to be detected about the neck, but the patient pressing upon his neck with his fingers on each side of the larynx immediately ejected from 2 to 3 oz. of the water. A biscuit was then given to him to eat, but pressure upon the neck in the same way failed to eject any of it. Another glass of water was swallowed, after which pressure on the neck as before ejected some 2 oz. The stomach presented evidences of dilatation, and splashing was easily detected. Having left the room to consult about the case, we were almost at once recalled, and the patient then, by slight pressure upon the neck, ejected the biscuit he had just previously eaten.

The diagnosis of oesophageal pouch was subsequently confirmed by Dr. Watson, who took an excellent radiogram, after giving the patient some bread and milk, containing a considerable amount of bismuth oxide. On looking through the screen, the bolus of food could quite easily be seen entering the pouch when he attempted to swallow. Four spoonfuls were given to the patient while we were looking through the screen, and the bolus on each occasion could be seen passing down the pharynx and entering the pouch, but none could be detected passing down the oesophagus into the stomach. On any attempt at deglutition, such as the attempt to swallow saliva, we could see the now distended pouch with its black contents, about the size of a hen's egg, rising and falling. It seemed to spring from the left side of the oesophagus, pass downwards towards the middle line, and terminate a little towards the right side, just below the level of the suprasternal notch. The screen was placed directly under the chin, with the head thrown well up and back, so as to obtain a good view of the bismuth food from the moment it entered the mouth. It was subsequently found that the patient himself had discovered that he was able to swallow much more easily when the head was inclined towards the right side and bent forwards, but with the head thrown upwards and directed towards the left side deglutition was more difficult, and less food seemed to him to pass onwards into the stomach. He always referred his sense of discomfort and fullness after deglutition to the right side of the neck about the level of the hyoid bone.

Operation.

The pouch was removed on May 27th, 1908, in the presence o Dr. Finny, Mr. Henry Stokes assisting me, and Dr. Drury giving the anaesthetic.

The pouch was readily exposed by making an incision along the anterior border of the sterno-mastoid muscle from the hyoid bone to the sternum. The omo-hyoid muscle (anterior belly) was divided, and the superior thyroid vessels divided between two ligatures. A rather large lateral lobe of the thyroid gland was displaced, so as to expose the oesophagus. The pouch, which was slightly distended with air, passed downwards directly behind the oesophagus, its lower end extending to a point just below the level of the suprasternal notch. There were no adhesions, and it was readily drawn out of the wound; it had its origin from the posterior aspect of the oesophagus, about its junction with the pharynx. A few muscular fibres were spread out over its neck, but the major portion of the pouch seemed to consist mainly of thickened mucous membrane.

An oesophageal bougie was passed by Dr. Drury, after which two small intestinal clamps were applied to the neck of the pouch, a division made between them with the knife, and the diverticulum removed. Before removal of the clamp a continuous fine silk suture was applied to the cut end, and this was then enfolded towards the lumen of the oesophagus by a second fine silk suture, which passed through the muscular tissue alone. The application of this suture was the only difficult part of the operation, as the oesophagus slipped back into its normal position the moment the clamp was removed. In any subsequent case, I intend before removing the clamps to pass two traction sutures through the oesophagus above and below the situation of the communication of the pouch with the oesophagus by which the assistant could pull it out, allowing the second row of sutures to be passed with greater certainty and rapidity. The suturing of the oesophageal opening completed, a soft stomach tube was passed and the stomach washed out, so as to diminish any tendency to vomit. A small tube was passed from the middle of the wound towards the sutured oesophagus, and around this tube a piece of gauze was loosely packed. About three-fourths of the wound was closed by silkworm gut sutures and protected with flexile collodion dressing.

After-Treatment.

The subsequent treatment consisted in giving salines with and without raw meat juice by the rectum at regular intervals, and in withholding all nourishment by the mouth for four days. The mouth was frequently rinsed with formolyptol solutions and kept as clean as possible. On the fifth day teaspoonful doses of raw meat juice and sterilized milk and small pieces of jelly were given by the mouth, and when it was seen that there was no sign of leakage from the oesophageal wound fluid

* Read before the Surgical Section of the Royal Academy of Medicine in Ireland.

nourishment was increased both in amount and in frequency, until by the eighth day as much as 4 to 6 oz. were taken at a time. Junket was then added and beaten-up eggs. From this on the diet changed to fish cream and chicken cream, then to boiled fish, and finally, by the end of three weeks, roast lamb with vegetables could be partaken of easily and with comfort. The chief trouble lay in getting the bowels to act. The temperature rose to 102°, but the pulse kept quiet, and there never at any time seemed any sign of irritation about the wound, which indeed healed up by first intention (the sutures were removed on the fifth day), except at the site of drainage, which healed within a couple of days after the drainage was left out. There was never at any time any sign of leakage. An attack of pleurisy on the day when the patient was about to return home detained him in the private hospital for another week.

On July 9th, 1908, the patient wrote: "Since the operation in June last I have no inconvenience in swallowing." He has since taken a trip to New Zealand, and has returned in perfect health. There is no discomfort whatever about his neck while swallowing.

Pathology.

Etiologically there are two varieties of diverticula—traction and pressure diverticula.

In the former the wall of the oesophagus is pulled outwards by the contraction of fibrous tissue formed in connexion with some old-standing inflammation in a neighbouring structure to which the oesophagus had become adherent. Most traction diverticula are small and situated on the anterior aspect of the oesophagus, though they have also been observed on the posterior wall. They do not, as a rule, produce symptoms, because the apex of the diverticulum is at a higher level than the opening, so that food either does not enter the diverticulum at all or does not stay in it. Such a condition is said, however, to favour the development of carcinoma.

Pressure diverticula are produced, as the term implies, by pressure, and the mouth of the diverticulum is at a higher level than the sacculus itself; consequently food enters the pouch, and the tendency is for the diverticulum, having once formed, to continue to increase in size. They are situated at the posterior or postero-lateral aspect of the oesophagus at its junction with the pharynx.

Their production is said to be favoured by the physiological narrowing which exists at the level of the pharyngeal constrictor and the gap said to exist at that point in the longitudinal muscular layer. They vary in size, and may extend for a considerable distance into the thorax. They usually pass downwards towards the left, but may be met with on both sides. Something like 100 cases have been reported from time to time. Mr. H. T. Butlin has reported no less than 8 cases upon which he operated, with 1 death. He states that he has notes of some 6 or 7 other cases; that in his opinion the cases are not so rare as we have been led to suppose; and that it only requires the attention of practitioners to be directed to the symptoms for more cases to be recognized.

Symptoms.

In the early stages the patient complains of dryness and a scratchy feeling in the throat, frequent hawking, nausea, expectoration of mucus, and a flow of saliva. Hawking brings up particles of food from the last meal mixed with mucus. A feeling of pressure may be experienced after taking solid food. After some time the sensation of the presence of a foreign body in the throat is experienced, and there is difficulty in swallowing. Small quantities of food regurgitate into the mouth, sometimes while eating, at other times after long intervals—for example, on getting up in the morning a portion of the previous night's supper may be regurgitated; this is a most important sign of the condition. Pressure on the side of the neck after eating or drinking may empty the contents of the pouch into the mouth. The regurgitated or ejected contents—unless when decomposition has taken place in the pouch—appear just as if recently swallowed. They are mixed with saliva and mucus, never appear digested, and are never mixed with stomach contents. Efforts to swallow may be associated with a gurgling noise in the pharynx owing to the escape of air from the pouch. Large diverticula when distended may produce dyspnoea and hoarseness from pressure, while the pressure upon neighbouring blood vessels may produce congestion. The pressure of a distended diverticulum, if large, may obliterate the oesophagus so as to render further deglutition impossible. Decomposition of the contents of a diverticulum will produce great fetor of the breath. These symptoms may not manifest themselves till late in life. Most cases are over 40 years of age and some 70 years or more. One case of Butlin's, operated upon successfully, was 73, and one case, also successfully operated upon by Dr. George E. Brewer,[1] was 78 years of age.

Diagnosis.

The diagnosis can generally be readily made from the history which is quite characteristic. Nothing could be more typically characteristic of an oesophageal diverticulum than the history of the case just detailed. Examination with x rays by the screen while giving food containing some salt of bismuth, particularly a heavy salt such as the oxide, will confirm the diagnosis. An x-ray photograph taken when the pouch is full of the bismuth food will be a permanent record of the situation and extent of the pouch. The oesophagoscope, I have no doubt, would also confirm the diagnosis as well as show the position and size of the diverticulum.

Cases have been mistaken now and again for stricture of the oesophagus, either simple or malignant. One case was operated upon by Mr. Whitehead, of Manchester, under the impression that the patient was suffering from cancer of the oesophagus (gastrostomy being the operation). She survived some six years, and *post-mortem* examination showed the real cause of the trouble to have been an oesophageal pouch. One of Mr. Butlin's patients had his throat cauterized and the uvula cut or burnt off under the impression that the elongated uvula produced the symptoms reflexly. The subject of this communication was cauterized several times under the same impression by a specialist.

Prognosis.

Without operation the prognosis is bad. The condition gradually gets worse, until death takes place from inanition or until decomposition leads to suppuration and abscess, mediastinitis, or septic pneumonia. The condition may, it is said, lead to the development of cancer, the pouch itself becoming cancerous.

Treatment.

The correct treatment consists in the complete removal of the pouch. This operation does not tax the patient's strength or vital powers unduly, is simple to perform, and the results are eminently satisfactory. Old age does not seem to be any bar to the success of the operation.

The mouth and teeth should be attended to before the operation, and the pouch itself should be empty. If the breath is fetid the probability is that decomposition is taking place in the pouch. It should therefore be washed out with some non-poisonous antiseptic or disinfectant.

The incision should extend from the hyoid bone to the sternum, on whichever side the pouch is situated, and along the anterior border of the sterno-mastoid muscle. The anterior belly of the omo-hyoid muscle and the superior thyroid vessels must be divided.

The lateral lobe of the thyroid gland may require displacement. The pouch can then be easily seen and withdrawn, for unless decomposition has led to inflammation it is not adherent. The continual movements of the oesophagus during deglutition prevent adhesions. On drawing the pouch out of the wound a bougie should be passed to ensure the absence of stricture, and to indicate accurately the position to which the clamp may be applied so as not to encroach too much upon the oesophagus. Risk of infection of the neck will be minimized, if not abolished, by having the pouch emptied and by cutting between clamps. The loose tissue at the root of the neck should be disturbed as little as possible, otherwise infection of the neck, if it supervened, would readily extend to the mediastinum and cause death. The oesophageal wound should be accurately closed by two, or possibly three, rows of sutures. The first row should be applied to the cut edges of the neck of the diverticulum before the clamp is removed. Two traction sutures should be passed through the oesophagus above and below the site of the pouch, so as to facilitate the application of a second, or even a third, row of sutures to enfold the first row. The oesophagus can thus be drawn outwards and forwards by the assistant pulling upon the traction suture. The second row of sutures should only pick up the muscular tissue of the oesophagus, while a third row, if desired, may close the loose cellular tissue over the muscular layer. Drainage should always be provided for by tube and gauze; but I see no reason for

leaving the entire wound open, as Mr. Butlin and others recommend (von Bergmann's operation). The stomach may be washed out after the oesophagus has been sutured, so as to diminish the likelihood of post-anaesthetic vomiting. The stomach tube passes readily.

The post-operative treatment is also important. In any future case I shall certainly carry out a similar line of post-operative treatment to that adopted in this case—namely, the avoidance of all nourishment by the mouth for four days, frequent rinsing of the mouth and pharynx with an antiseptic mouth-wash, and rectal administration of salines with raw meat juice. It may be said that as the patient is constantly swallowing saliva he will be no worse off if allowed to take liquid nourishment; but I think less strain will be thrown upon the oesophageal wound by simply leaving the patient to swallow saliva than by giving milk and other liquid nourishment to drink.

Some authorities recommend preliminary gastrostomy a couple of weeks before removing the diverticulum, with the object of increasing the patient's strength before operation and of being able to feed him from the first without running any unnecessary risk of producing leakage of the oesophageal wound. In greatly emaciated patients badly exhausted by inanition, such a preliminary operation under cocaine anaesthesia should unquestionably be performed, but in cases not so exhausted it is unnecessary.

The removal of the diverticulum itself could easily be accomplished under local anaesthesia, and the patient given a satisfactory meal through the stomach tube passed before the neck wound is closed and while the sutured oesophagus is still under the operator's eye.

Passing a tube through the mouth into the stomach or oesophagus, and leaving it in position so as to feed the patient subsequent to the removal of the pouch, is a procedure to which I should not have recourse.

REFERENCE.

[1] *Annals of Surgery*, October, 1908.

Remarks ON COMMON TYPES OF SORE THROAT.*

BY A. STANLEY GREEN, M.B., B.S.,

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SORE throats present considerable difficulties both in diagnosis and treatment, and are amongst the most anxious cases that the medical man is called upon to treat in his practice, especially amongst children, for when a child complains of a pain in the throat the mother is filled with anxiety, sends for the doctor, and her first question is, "What is it, doctor? Is it diphtheria?" and the doctor is expected to give it a name forthwith. Now, in some cases this is an easy matter, but in a large number the diagnosis presents many difficulties, and the cautious man will exercise reserve in giving a definite opinion.

Scarlet Fever.

I do not propose to enter into any details with regard to the differential diagnosis of the acute specific infectious diseases from the appearance of the throat; so many other circumstances have to be taken into consideration with which you are all more familiar than I am, for my practice does not lie in that direction. I often hear the expression, "He's got a typical scarlet fever throat"; but there are four different conditions of sore throat met with in scarlet fever.

1. The tonsils, faucial pillars, palate, uvula, and oropharynx are swollen and of a deep red colour. Sometimes there is inflammatory oedema. (This picture was exactly reproduced in all the throats in our milk epidemic, and many cases were isolated, the isolation being strictly enforced until the patient had finished peeling; in all my cases the oedema was very marked, and the submaxillary glands were involved very early and to a considerable extent.) I have also seen several throats this spring which presented the same appearance, but they were due to influenza; but in these patients the glands were not affected, but a very troublesome cough annoyed the patients, especially at night, and caused a sharp cutting pain in the larynx, which, however, on inspection was found to be normal, but the mucous membrane of the trachea was the seat of inflammation. I found that glyco-heroin acted as a specific for the cough, and the pain was relieved by benzoic acid lozenges sucked freely.

2. The appearance presented may be that of a follicular tonsillitis.

3. A definite membranous inflammation may occur; the membrane is soft, and leaves superficial ulceration as it disintegrates.

4. Marked and deep ulceration occurs in the septic variety; the ulceration may spread upwards to the nasopharynx and nose and downwards to the epiglottis and larynx; the soft palate may be perforated or the uvula may slough off.

The treatment of the throat symptoms in these diseases merits more attention than is usually paid to them; a gargle is frequently ordered, which many patients, especially children, are unable to use, and in any case the fluid seldom reaches the oropharynx; it is far more efficacious to prescribe a lozenge—for example, formamint—or apply whatever fluid is chosen with a brush; this the physician should do once a day himself, because parents, and indeed many trained nurses, are unable to carry this out efficiently, and more is deposited on the surface of the tongue than reaches the inflamed area. I find it better in many cases not to depress the tongue with a spatula—this causes the patient to hawk and retch; if the patient is directed to open the mouth wide and take a deep breath, the tongue sinks down, and the brush can be passed in rapidly, and the whole area thoroughly swabbed. Inasmuch as the inflammation in a large percentage of cases extends upwards through the Eustachian tubes to the middle ear, causing acute otitis, it is always advisable to douche the nasal cavities; personally I never use a spray, as they are inefficient, easily get out of order, and frighten a nervous child. I find the glass douche the easiest to use, and a warm alkaline solution the most efficacious in clearing away the mucus and freeing the nasal passages.

Diphtheria.

I need not say much about diphtheria; the only question is one of early diagnosis, and the prompt injection of serum in efficient doses. The diagnosis is often attended with difficulty, especially when the membrane is confined to one or both tonsils; indeed, when I was a student I was taught that such cases were not diphtheria, but I have seen several cases in which only one tonsil was covered with membrane, but bacteriological examination revealed the specific organism; these cases are very important, because many of the patients are well enough to walk about, but at the same time are sources of infection to their comrades, and may themselves suffer from subsequent paralysis. The injection of serum is sometimes followed by very unpleasant symptoms.

I had a case lately where I injected 3,000 units of anti-diphtherial serum, and in less than ten minutes the patient's eyelids commenced to swell and this swelling involved the whole of the face in less than one hour; the lips were as thick as a negro's, and the whole body was covered with an urticarial eruption which caused the patient intolerable irritation. I remembered that I had treated her six years previously for hay fever, and that one of her sisters had suffered from chilblains, so I prescribed 20-grain doses of calcium chloride every two hours, with the result that in fourteen hours all the swelling had disappeared from her face and only small areas of eruption were causing any irritation.

Vincent's Angina.

Vincent's angina is a condition met with more commonly than is generally supposed. There are two varieties, but only the ulcero-membranous presents any interest for us; the diphtheroid is extremely rare. The more common type is ushered in by headache and fever with redness of the fauces and enlargement of the tonsils; the breath is fetid, tongue coated, and the submaxillary

*A paper read before the Boston and Spalding Division of the British Medical Association.

glands swollen and tender; deglutition is attended with difficulty and pain. The attack may subside in a week or ten days, or may persist and become chronic; in some cases ulceration of the tonsils and palate may occur. In one case of mine both middle ears had become infected before I saw the case, and both the fusiform bacillus and spirillum were found in the pus. When a grey or yellow membrane has formed on the tonsils and palate it is difficult to diagnose the case from diphtheria or streptococcal infection without a bacteriological examination.

Streptococcus Infection.

One of the most serious conditions of sore throats that we are called upon to deal with is acute streptococcus infection, which may simulate diphtheria very closely, but the diagnosis is cleared up by taking a swab. If seen in the early stage only one tonsil may be affected; it is swollen and red and covered with a yellowish membrane which is difficult to remove, and the surface of the tonsil bleeds when the membrane is removed; the patient's breath is offensive, tongue coated, temperature high (sometimes 106°), and pulse rapid; very soon the other tonsil is affected, and the palate may or may not be swollen. I have seen a case lately where both tonsils and their pillars were acutely inflamed and covered with thick yellow membrane, whilst the palate and uvula were unaffected; the patient feels miserably ill, is with difficulty persuaded to take food, and, if the swelling increases and invades the epiglottis and larynx, respiration becomes impeded, and the patient may be in imminent danger; it may be necessary to scarify the swollen parts or perform tracheotomy. The glands behind the angle of the jaw are affected from the commencement and may form a swelling the size of a Tangerine orange in less than forty-eight hours. Culture from a swab will give either a pure growth of *Streptococcus pyogenes aureus* or a mixed growth of *Staphylococcus* and *Streptococcus*. I find it best to give 5 to 10 c.cm. of polyvalent serum (P.D.), and I swab the throat with a solution made by dissolving 10 grains of a powder composed of equal parts of sodium bicarbonate, sodium chloride, and potassium chlorate in an ounce of water; this should be done every two hours or every hour if necessary. It is surprising how this solution will dissolve this membrane or diphtherial membrane if thoroughly applied; in one case of mine the whole surface of the oropharynx and both tonsils was covered with a thick yellow membrane, but it all disappeared in twenty-four hours, and in thirty-six hours the throat was clear. The throat in this case had been painted with solution of silver nitrate and lactic acid for three days without any improvement taking place, and I am convinced that it is quite useless to paint these throats with antiseptic solutions, as they only tend to harden the membrane.

Place a thick piece of diphtherial membrane in this solution, and you will see it melt away; but place a similar piece of membrane in a solution of weak mercury perchloride and it will become tougher than before. The effect of the serum is in some cases astonishing; in others it is very slow, and a second dose may be required. One very acute case—a lad with empyema of the right maxillary antrum, with a temperature of 105° and a pulse of 140, a thick-coated tongue, and an intensely inflamed septic throat—recovered in less than forty-eight hours. I always prescribe an effervescing mixture of iron and quinine every four hours, giving 20 minims of tinct. ferri perchlor. to each dose; the bowels must, of course, be thoroughly cleared with a good dose of calomel.

Retropharyngeal Abscess.

Retropharyngeal abscess may follow a septic throat. It is, however, a very rare occurrence in adults. I saw one in consultation with Dr. Genney last year. The patient's throat had not been very acutely inflamed, but the abscess, which was situated on the right side, was a large one, and I advised immediate operation on account of the danger of the abscess bursting during his sleep and flooding his larynx; in this case I opened the abscess by means of a 3 in. incision along the posterior border of the sterno-mastoid muscle. I feel sure that in adults, at any rate, this method is attended with less risk than opening through the pharyngeal wall, which is the method usually employed with children in acute cases. I know of one case in which a fine athletic young man died of septic pneumonia three days after such an abscess had been opened through the pharynx. In the case I operated on a culture from the pus gave a pure growth of the *Streptococcus pyogenes aureus*. The patient did extremely well until the tenth day, when his temperature suddenly rose to 104°; we decided to give 10 c.cm. of polyvalent serum and this had a wonderful effect, for the temperature fell to normal in eighteen hours, and there was no further rise.

The only condition that could be mistaken for a retropharyngeal abscess in an adult is a large gumma. In children a chronic retropharyngeal abscess, due to adenitis or vertebral caries, is not at all uncommon, and in these cases I have always performed the external operation, and up to the present I have not lost a case.

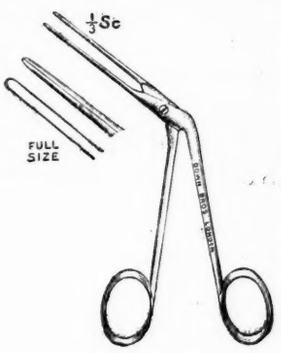
Tonsillitis.

The tonsils are a great source of trouble to many people, and are subject to various forms of inflammation, the most common being lacunar and parenchymatous. In the former the brunt of the inflammation falls upon the lacunae, which are plugged with yellow material, and in some cases small abscesses form at the bottom of the crypts; in the latter the whole tonsil is swollen and inflamed, and if both are attacked at the same time may meet in the middle line, and make swallowing a matter of very great difficulty. The pain may sometimes be relieved by placing the index finger in front of the tragus on each side during deglutition. Rheumatism has been assigned as the poison which causes many of these cases of acute tonsillitis, and it is—in children, at any rate—essential to keep the patient at rest in bed, and a careful examination of the heart should be made, and if any cardiac trouble be discovered small blisters should be applied over the cardiac area. I find gargles worse than useless in these cases, and it is better to give the patient guaiacum lozenges to suck freely and to apply warm alkaline lotion to the throat with a brush several times a day. I always prescribe sodium salicylate, sodium bicarbonate, and ammonium bromide, and, if there is a high temperature, I add tincture of aconite. Sodium benzoate is said to cure acute lacunar tonsillitis in from twelve to thirty-six hours if given in 5 to 15 grain doses every two hours. Some patients prefer warm fluids, while others obtain more relief from sucking ice.

We have a different condition to deal with when the peritonsillar tissue is the seat of inflammation, for in these cases we nearly always have abscess formation and the tonsil is pushed downwards and inwards; the faucial pillars and corresponding half of the soft palate are acutely inflamed; hot linseed poultices round the neck and hot drinks help matters, but venous hyperaemia, by means of a long narrow cupping glass, is better still. As soon as pus has formed it should be evacuated. It is cruel to leave a patient to suffer perhaps another forty-eight hours to allow the abscess to burst; it is far better to paint the throat with cocaine and incise the abscess with a bistoury, and then pass in a pair of narrow forceps, which should be opened until all the pus has been evacuated. The point of the bistoury should be inserted at the outer of the two angles formed by a horizontal line passing through the base of the soft palate and intersecting the vertical line passing along the surface of the inflamed tonsil; the bistoury should be plunged in to the depth of ½ in., and then a pair of narrow forceps passed along the track and opened in different directions until the pus has been found. When recurrent attacks of tonsillitis occur there is always some cause—for example, obstruction to nasal respiration, bad hygiene, or carious teeth—which must be removed.

There can be no doubt about the expediency of removing tonsils which are the seat of chronic tonsillitis or have been subject to recurrent attacks of acute inflammation; in the latter case, every piece of tonsillar tissue must be removed or our object will not be attained. I remember a case of a nurse who had been practically thrown out of work by constantly recurring attacks of tonsillitis, although both tonsils had been sliced with the guillotine on two separate occasions, yet when the offending tonsils were removed *in toto* with punch forceps no further trouble was experienced. It is, I think, impossible for any surgeon to remove the whole of a tonsil with the guillotine single handed, because the tonsil slips away when pressure is put upon it; it is therefore necessary to have an assistant to press the tonsil into the fenestrum of the instrument.

I have had a pair of forceps made with the blades cutting up and down so that they may fit in between the pillars of the fauces, which are in danger of being injured if the blades cut from before backwards.



Calculi often occur in the tonsils, due to the retention of the secretions in the lacunae, and these become calcified. They usually occur in the upper part of the tonsil. They may give rise to no symptoms or may cause prolonged suppuration with periodical attacks of acute or subacute inflammation or severe pricking sensation or stabbing pains in the faucial regions or ears. The submaxillary glands may enlarge owing to the continued irritation. No difficulty is experienced in removing these calculi either with a scoop or a pair of forceps.

Malignant Growths.

Sarcoma is the most common of the malignant tumours which affect the tonsil, and may present itself as a smooth, red, irregularly-lobulated tumour, which tends to spread externally. If seen at this stage before the glands are affected, the tumour can in many cases be shelled out from its capsule with very little trouble and little if any haemorrhage. If ulceration has occurred the outlook is very different; still, if the condition of the patient is good an attempt should be made to remove the growth.

I have had a fairly large experience in the treatment of both sarcoma and carcinoma of this region with *x* rays and radium, and I find that not only is the rate of growth not checked, but in some cases it is accelerated. I had, however, one case of sarcoma of the right tonsil with extensive enlargement of the glands, which I treated with large doses of *x* rays, with the result that after the growth had been removed from the tonsil the glands subsided entirely, and did not give any trouble until a recurrence took place in the tonsil. Further *x*-ray treatment again caused the glands to subside; but a third recurrence took place, and in spite of all I could do the glands enlarged to an enormous size and the patient died.

The clinical aspect of carcinoma of the tonsil is quite characteristic—an excavated ulcer with hard, everted edges. The only condition which may simulate it in any way is a broken-down gumma, which would disappear under large doses of potassium iodide.

Syphilis.

I have found more relief is obtained by the insufflation of orthoform in ulcerated conditions of the pharynx and larynx than by any other method. In secondary syphilis of the pharynx, the so-called "snail-track" ulcer, the best local application is a solution of chromic acid (10 grains to the oz.). Inherited syphilis often attacks the bucco-pharyngeal cavity, and may produce a deep ulceration in the centre of the hard or soft palate, nasal fossae, or posterior wall of the pharynx, laying bare the bone and causing necrosis.

Chronic Pharyngitis.

Chronic pharyngitis is a very common complaint, causing the patient a considerable amount of discomfort, which a highly nervous individual may magnify into real pain. Some of these cases are of the simple variety, and the soft palate, faucial pillars, and oropharynx are red and inflamed; there is a good deal of tenacious mucus on the wall of the pharynx which the patient finds it difficult to get rid of, especially in the morning, and this causes retching, and in some cases a troublesome barking cough. These patients complain that they have always got something in the throat which they are unable to get rid of, and also a tickling sensation starting in the soft palate and spreading over the whole of the pharynx, and they feel that it would give them ease if they could rub the surface with a finger; all these sensations are more marked when hyperplasia of the lymphoid follicles which surround the ducts of the mucous glands on the posterior wall of the pharynx has taken place, causing granules which vary in size from a split pea to a threepenny piece, and which in some cases form lateral bands behind the posterior faucial pillars; these are best seen when the patient retches. Prominent blood vessels sometimes run across the wall of the pharynx, and give rise to a great deal of discomfort unless they are obliterated with the galvano-cautery. This granular variety is very often met with in clergymen and other professional voice-users.

Chronic pharyngitis is often the only visible sign of some constitutional defect, and its successful treatment depends upon the care taken in ascertaining the cause; this may be some bad habit—for example, drinking alcohol to excess, especially spirits (topers always have a very sensitive throat), excessive tea drinking (in men as well as women), smoking (especially cigarettes), the use of pickles, sauces, and hot spicy foods. If there be a history of gout or rheumatism I eliminate meat from the dietary. In any case in which the patient complains of dyspepsia and heartburn I insist upon a very simple diet, and order a mixture of soda and gentian before meals and papain in cachets or tabloids after food; constipation is often troublesome in such cases, and an aperient water in the morning, fasting, is the best corrective. If there are any carious teeth present the patient must see the dentist. A warm alkaline douch for the nose will give much relief, and if the same fluid is used with a brush on the wall of the pharynx most of the mucous will be removed without any difficulty; the pharynx may then be brushed with some astringent paint—for example, silver nitrate solution in various strengths or a solution of iodine in potassium iodide. If the granules do not disappear under this treatment they should be destroyed with the galvano-cautery blade, only a few being touched at each sitting. This is best done under cocaine anaesthesia. One of the best lozenges to prescribe in these cases is the carbolic acid of the *British Pharmacopoeia;* menthol in the form of a lozenge with a black-currant base sometimes gives great relief, but some patients have a great distaste for menthol.

In quite a large number of cases of chronic pharyngitis a careful examination of the nose will reveal some obstruction to nasal respiration; this must of course be remedied, especially if it is sufficient to cause the patient to sleep with the mouth open. The form of obstruction that I have found most commonly associated with pharyngitis is that known as "alternating rhinitis," where first one nasal passage and then the other is blocked by the swelling of the inferior turbinate bone; this occurs most frequently when the patient is in bed, and he finds that he is unable to breathe through the dependent nostril. When the patient is examined both nostrils may be patent, and the condition may be missed unless the patient is closely questioned. Application of the galvano-cautery to the mucous membrane of the offending turbinates may cure this condition, but in some cases is not sufficient, and it is necessary to remove the anterior third of the bone; this I do under anaesthesia produced by the application of a 10 per cent. solution of alypin, a less toxic drug, which I find quite as effective as cocaine. The method I employ is to make a cut with scissors, which I had made for the purpose with the lower blade a little longer than the upper. I then pass the loop of the cold snare round the cut end, and by tightening it up remove the amount I consider necessary; haemorrhage is free at the time, but soon ceases, especially if calcium chloride has been administered to the patient in 15 grain doses for three days before the operation is performed. I find it best to give this drug one hour before each meal.

A very dry condition of the pharyngeal mucous membrane is sometimes seen in weak, anaemic women, and no other cause can be detected save the condition of their general health. The best treatment is the administration of cod-liver oil and iron and change of air; indeed, most patients suffering from chronic pharyngitis derive benefit

from change of air, and of all places that I have tried I find Buxton the best, except when the patient is suffering from rheumatism. Then I recommend either Malvern or Droitwich, so that the brine baths may be taken as part of the cure.

Laryngitis.

Although ulceration of the vocal cords never occurs in simple chronic laryngitis, still this is a condition which is very difficult to cure, and which very often relapses. It often occurs with chronic pharyngitis, and the same causes which have been mentioned in that condition should be looked for and eliminated as far as possible. The inhalation of steam medicated with compound tincture of benzoin or the oil of Scotch fir often gives relief. Care must be taken that the steam is not of too high a temperature, and I always advise patients to mix two-thirds of boiling water with one-third of cold water. If the secretions be viscid and difficult to get rid of, the best lozenge is one composed of ammonium chloride, the only drawback being the disagreeable taste; potassium iodide and tincture of nux vomica in a mixture will often help in this condition. It may be necessary to apply astringent solutions direct to the seat of inflammation, and of these zinc chloride is the best; a wool brush made by twisting some wool tightly round a curved Playfair's probe should be used. The patient must be instructed to use the voice as little as possible.

Laryngitis may be due to the tubercle bacillus, and is then nearly always secondary to tuberculous disease of the lung. It may occur in quite the early stage of pulmonary tuberculosis, before any physical signs can be detected with the stethoscope, although the extent of the lung mischief may be apparent if the chest be examined with the *x* rays. The importance of an early diagnosis is very great, because laryngeal tuberculosis is not now the extremely fatal disease which it was thought to be some years ago. I have seen some cases make very good recoveries, even when both lungs were affected. The most important point in the treatment is rest to the larynx; the patient must be instructed not to raise his voice above a whisper. Even when ulceration has taken place, the patient need not necessarily lose hope, if only he is able to devote the necessary time and money to a long stay in a good sanatorium. I have more than one patient under my supervision in whom the ulcer has cicatrized, the lung trouble has become quiescent, and the patient has resumed work. Where ulceration is present and pain a prominent feature, insufflation of orthoform gives more relief than anything else, and the patient soon learns to do this for himself. Active local treatment, also, is sometimes necessary in these cases.

Malignant Disease of the Larynx.

Malignant new growths are divisible into two groups, intrinsic and extrinsic. The former include tumours growing from the ventricular bands, the ventricles, the vocal cords, and the parts immediately below the cords. The term "extrinsic" is applied to neoplasms taking their origin from the epiglottis, aryepiglottic folds, the interarytenoid fold, the pyriform sinus, and the posterior surface of the cricoid plate. The importance of this classification lies in the fact that intrinsic cancer is of slow growth, and secondary deposits only occur late in the disease when the growth has spread beyond the confines of the larynx. Early diagnosis and prompt operation give better results than follow removal of cancer in any other region of the body. Indeed, some very excellent results have been obtained since the method of attacking the disease by the external operation of thyrotomy has superseded the older methods of intralaryngeal removal.

A very different story has to be told of extrinsic cancer, for in these cases ulceration occurs early, and the glands are involved much earlier. The only condition which this could be mistaken for is a broken-down gumma. Even in these late cases, if the patient's general condition warrants it, an attempt should be made to extirpate the disease by complete excision of the larynx provided the serious danger of the operation is placed before the patient, and he prefers to face this rather than the inevitable suffering which must ensue if the disease is allowed to take its natural course. It should be laid down as an absolute rule that when an adult complains of hoarseness or alteration of voice of several weeks' duration, the larynx should be carefully examined, and if there is diminished mobility of a vocal cord with or without a definite tumour, the help of a skilled laryngologist should be promptly obtained. Many lives and much suffering would be saved if this rule were rigidly observed by those who first see these cases.

ON THE WASSERMANN REACTION IN GENERAL PARALYSIS OF THE INSANE.*

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WHEN the serum of a syphilitic patient is mixed with an extract made from the liver of a syphilitic fetus, the mixture possesses a property not possessed by either constituent alone in the same degree. It is able to take up complement. That this is the case is shown by adding to the mixture a suitable quantity of complement—that is, fresh guinea-pig serum—and after an interval adding sensitized red blood corpuscles. The red cells remain intact, suspended in the fluid; whereas, if the complement had not previously been taken up, they would have been laked.

A quite analogous phenomenon occurs in other conditions. If we mix the serum of a typhoid patient with an extract of typhoid bacilli, the mixture similarly acquires the property of fixing complement; and this is true for many other organisms and the corresponding serums. It seemed reasonable, therefore, to suppose, as Wassermann[1] did when he discovered the syphilis reaction, that in this case also he was dealing with an extract of the causal organism and the corresponding serum. In other words, the liver extract was active because it was an extract of the *Spirochaeta pallida* contained in the liver, and the serum was active because the patient had responded to the invasion of the spirochaete by producing an antibody in his blood. If this were so, the reaction would be specific; the complement would be fixed only if the serum came from a syphilitic, but would remain free if the serum were derived from a non-syphilitic; and a method for the serum-diagnosis of syphilis would have been devised. This proved to be the case. The reaction is specific for syphilis, and its value as an aid to diagnosis is admitted. The theoretical support, however, and the convenient explanation of the specificity which the typhoid and other analogies supplied, have had to be abandoned. It has been shown by many workers[2 3 4] that the spirochaete is not an essential factor in the liver extracted. Non-specific substances such as the heart of the guinea-pig,[5] or even combinations of such relatively well-defined bodies as lecithin, oleic acid, and sodium oleate,[6] may replace the syphilitic liver in the reaction. Its validity, therefore, as a means of diagnosing syphilis depends entirely on the empirical proof. This fortunately is present in embarrassing quantity. Wassermann[7] himself a year ago could report the examination of 1010 non-syphilitic serums without a single positive result, and although there is now a small number of cases on record in which a positive reaction has been obtained in the absence of syphilis, it is everywhere accepted that the reaction is thoroughly reliable as an aid to diagnosis.

Immediately after his announcement of the method, Wassermann published with Plaut[8] a paper showing that if the cerebro-spinal fluid from cases of general paralysis of the insane were used in place of the syphilitic serum in his reaction, the complement was fixed in the same manner. This was hailed at once as supplying an objective proof of the connexion of general paralysis with syphilis, which had long been asserted on clinical grounds.

At Dr. Mott's request we undertook the examination of a series of spinal fluids from cases of general paralysis and other diseases, the result of which we record in this paper.

* The results of a considerable portion of this work have already been reported by Dr. Mott in his Morison Lectures. See BRITISH MEDICAL JOURNAL, 1909, February 20th, p. 454.

The method we have employed is essentially that of Wassermann. The blood corpuscles used to test for the presence of complement are derived from the ox, freed from serum by thorough washing in salt solution. They are sensitized by the serum (heated thirty minutes at 56° C.) of rabbits which had received several injections of washed ox corpuscles. As extract we used at first a watery extract from the liver of a syphilitic fetus prepared in the manner described by Wassermann; but later we have used an alcoholic extract made by extracting 1 gram of crushed and pounded liver with 4 c.cm. alcohol at room temperature for two days and then filtering through paper. Such an alcoholic extract remains unaltered in the cold for weeks, and is incomparably more convenient to work with. We have found no difference in the results obtained with the alcoholic as compared with the aqueous extract. Meyer[9] has stated that he obtains "10 per cent. finer results" with watery than with alcoholic extracts, but this has not been our experience. It can scarcely be the case for all livers, since only 25 per cent. of congenital syphilitic livers give an aqueous extract strong enough to be useful (as Georg Meier[10] has stated), and practically all such livers give excellent alcoholic extracts. Before use we dilute our extract, adding 4 parts of salt solution to 1 of extract; the salt solution should be added slowly, as was pointed out by Sachs and Rondoni.[11] As complement fresh guinea-pig serum was employed. The spinal fluid was heated for half an hour at 56° C. before use.

As the strength in complement of guinea-pig serum varies for each animal, and a fresh animal was used for each day's work, the dose of rabbit serum necessary to adequately sensitize the red cells is determined each day—that is, the smallest quantity of rabbit serum which totally laked the red cells in presence of the complement was ascertained; and for use in the actual examination of the spinal fluid two to three times this ascertained dose is taken. For each spinal fluid the tubes are arranged in two series of three tubes each, into which the doses of spinal fluid are measured, as in the example (see table at foot of page). To the first series are added the indicated doses of guinea-pig serum and liver extract, and finally salt solution to make the volume 2 c.cm.; to the second series only guinea-pig serum and salt solution to 2 c.cm. A general control series of tubes is set up as shown. Then all tubes are placed at 37° C. for one hour, to allow fixation of the complement, if any, to occur. Then to all tubes, except the last three of the control series, is added the rabbit serum; and, finally, each tube receives 1 c.cm. of a 5 per cent. suspension of washed ox corpuscles in salt solution. The tubes are then shaken and placed for a further two hours at 37°. The results are then read off, and a second reading is made after the tubes have stood in the cold overnight.

The main difference in this method from that employed by Wassermann is that we have used ox blood corpuscles instead of sheep's. Human serum contains no, or inappreciable, amounts of amboceptor capable of sensitizing ox red cells. It does, however, usually contain amboceptor sensitizing sheep's red cells, and the amount of this may vary greatly with different individuals—for example, 0.25 c.cm. serum from one person may be insufficient to sensitize a quantity of cells, which is fully sensitized by 0.025 c.cm. from another.[12] [13] This uncertainty regarding the degree of sensitization of the red cells is troublesome when one is working with serums, and, although in examining spinal fluids it is not so significant, we preferred to use ox cells throughout our work.

We have examined 175 samples of cerebro-spinal fluid, derived from 127 individuals. Of these 127, 64 were cases of general paralysis, and in 59, or 92.1 per cent., a positive result was obtained, while in 5, or 7.8 per cent., the reaction was negative. These 64 cases include 7 from which the fluid was obtained only after death, and all of these gave positive results. It might be objected that the examination of such *post-mortem* fluids could give no trustworthy results. In the case of cerebro-spinal fluids, however (whatever may be the case with serums[14]), this is not so. If the fluid is withdrawn within twenty-four hours

	0.1 c.cm. Guinea-pig Serum + 0.1 c.cm. Extract + Salt Solution to 2 c.cm.	0.1 c.cm. Guinea-pig Serum + Salt Solution to 2 c.cm.	Result.
A. Spinal fluid known to be positive :—			
0.8 c.cm.	—	Total haemolysis	Positive.
0.4 c.cm.	No haemolysis	,,	
0.2 c.cm.	,,	,,	
0.1 c.cm.	,,	—	
B. Spinal fluid from general paralysis :—			
0.8 c.cm.	—	Total haemolysis	Strongly positive.
0.4 c.cm.	No haemolysis	,,	
0.2 c.cm.	,,	,,	
0.1 c.cm.	,,	—	
C. Spinal fluid from general paralysis :—			
0.8 c.cm.	—	Total haemolysis	Positive, but weak.
0.4 c.cm.	Slight haemolysis	,,	
0.2 c.cm.	Nearly total haemolysis	,,	
0.1 c.cm.	Total haemolysis	—	
D. Spinal fluid from melancholia :—			
0.8 c.cm.	—	Total haemolysis	Negative.
0.4 c.cm.	Total haemolysis	,,	
0.2 c.cm.	,,	,,	
0.1 c.cm.	,,	—	

E. General controls :—

0.1 c.cm. guinea-pig serum + 0.2 c.cm. extract + salt solution to 2 c.cm.	Total haemolysis.
0.1 c.cm. guinea-pig serum + salt solution to 2 c.cm.	,,
*0.1 c.cm. guinea-pig serum + salt solution to 2 c.cm.	No haemolysis.
*2 c.cm. salt solution	,,
*0.2 c.cm. extract + salt solution to 2 c.cm.	,,

* These tubes receive no rabbit serum.

after death from a body which has lain in the cold room during the interval (as was done in all our *post-mortem* cases), the Wassermann reaction is not altered. Examinations were made of such fluids from over 30 control cases, with no positive results. The spinal fluid even of a general paralytic, which had been negative during life, remained so after death. And in every instance when we have been able to examine *post mortem** the fluid from a case positive during life, the reaction has remained the same. If withdrawn from the lateral ventricle *post mortem* the fluid is always clouded with fine amorphous flocculi, but if taken from the spinal canal it is clear and limpid as in life. In 22 cases fluids from both the spinal canal and lateral ventricle were examined, with in every case corresponding results; either both were positive or both negative. It is noticeable, however, that the cloudy fluid, while remaining sterile, deteriorates more quickly on keeping than the clear fluid from the spinal canal. Our percentage of positive results agrees well with those obtained by the more recent workers—for example, Marie, Levaditi, and Yamanouchi[15] obtained 93 per cent. positive in 30 cases, Plaut[16] 98 per cent. in 95 cases. The earlier work gave lower figures, Wassermann and Plaut[8] finding only 78 per cent. positive in 41 cases, and Marie and Levaditi[2] 74 per cent. in 39 cases. Of 352 cases collected from the literature, 309, or 87.7 per cent., give positive results.

Marie and Levaditi[2] pointed out that the percentage of positive reactions increased as the disease was more advanced. It is not easy to classify satisfactorily such a disease as general paralysis into definite stages, but, on the whole, our results agree with those of the French authors. Thus, of 21 cases undoubtedly in the most advanced stages of the disease, over 90 per cent. gave the reaction, while of 16 cases certainly in a middle stage, only 81 per cent. were positive. We examined also 9 cases (not included above) in which the definite diagnosis could not be made clinically, though it was considered possible that general paralysis might develop. These all gave negative results. It will be interesting to observe the further progress of these cases clinically and with regard to the Wassermann reactions. In 6 cases of advanced paralysis we tested the urine, with negative results. This agrees with the finding of Hoehne,[17] though Blumenthal and Wile[18] state that they have obtained positive results with urine in a large number of cases of syphilis.

Fluids from 63 cases not suffering from general paralysis have been examined, in 32 of which the fluid was obtained during life. In no single instance was a positive reaction obtained. These cases included melancholia (9), senile mania (10), epilepsy (2), cerebral tumour (2), cerebellar tumour, syphilitic meningitis, lues cerebri, tuberculous meningitis, alcoholism (3), disseminated sclerosis, dementia praecox, post-haemorrhagic and other softenings; and a few fluids received for diagnosis of tuberculous or epidemic meningitis.

In suspected general paralysis a positive Wassermann reaction with the cerebro-spinal fluid is practically diagnostic. In only two other conditions is it ever obtained,† namely, in tabes and in syphilis located in the central nervous system of the meninges. In tabes it occurs regularly, but with much less frequency than in general paralysis. Thus in 112 cases from the literature positive results were obtained in 57, or 50 per cent. In cerebral syphilis it is stated to occur occasionally, though exceptionally.[16 19 20] We have not yet met with a positive case, and it is evident that it is not the rule to obtain the reaction, although the serum may be strongly positive. These two diseases do not usually present difficulties in differential diagnosis, and apart from them the reaction is, so far as is yet known, decisive. It is unfortunate that it is precisely in the early stages of general paralysis, where diagnosis is most difficult, that the reaction most often fails us by giving a negative result. But even in the most advanced cases one occasionally obtains a clear negative. In one of our cases, two months before the patient died, the spinal fluid was negative, though his condition was such that he clearly had not long to live. Three days before death his serum was positive. The diagnosis was confirmed *post mortem*, macroscopically and microscopically. The spinal fluid was withdrawn two hours after death, and specimens of lateral ventricle fluid and of serum were obtained twenty hours after death, all of these giving very strong positive reactions. In this instance, then, although the fluid eventually became positive, it was still negative a short time before death, when the disease was far advanced. We have already referred to a case in which the fluid remained negative throughout.

	Cerebro-spinal Fluid.	Serum.
General paralysis: In literature ...	352 cases, 309 positive—that is, 87.7 per cent.	285 cases, 247 positive—that is, 86.6 per cent.
Our cases	64 cases, 59 positive—that is, 92.1 per cent.	10 cases, 9 positive—that is, 90 0 per cent.
Tabes dorsalis: In literature ...	112 cases, 57 positive—that is, 50.8 per cent	176 cases, 125 positive—that is, 71.0 per cent.

In most cases of general paralysis not only the spinal fluid is positive, but also the serum. It has been said that the serum is invariably positive; but this is not the case. Plaut,[16] Lesser,[21] and Marinesco[22] have indeed recorded 100 per cent. of positive reactions in 169 cases; but Marie, Levaditi, and Yamanouchi[15] obtained only 59 per cent. positive in the serum (as against 93 per cent. in the spinal fluid), and others[23] have obtained even smaller figures. Of 285 cases in the literature, 86.6 per cent. gave positive reactions. We have been able to examine only 10 serums from paralytics, of which 9 were positive and 1 negative. These include a case in which the serum was positive but the spinal fluid negative. The occurrence of cases where the fluid is positive but the serum negative, and the fact that in ordinary syphilis the fluid is always negative though the serum is strongly positive, show that the existence of the reacting substance in the spinal fluid is not due to a mere filtration from the blood. The active body appears in the fluid as the result of a local production, due to an alteration in the nervous system itself or in its coverings. This alteration is of a specific character. The reaction does not always accompany the presence of excess of albumen in the fluid. Thus a positive reaction is not obtained in simple meningitis. Even in syphilitic meningitis we do not get a positive reaction. Through Dr. Mott's kindness we were able to examine such a case three times in two months, during which the cell contents fell under mercury from 350 cells in 1 c.cm. to 70, 20, and eventually none; all three examinations gave negative results. All such tests as depend on excess of globulin or albumen in the spinal fluid must, therefore, fail to be specific. Nor does a positive reaction necessarily accompany an excess of lymphocytes in the fluid (cf. Marie and Levaditi[2]). In 32 estimations of the presence of lymphocytes in the fluid of paralytics, we found these cells in marked excess in 31 and in slight excess in 1, but in only 29 was the reaction positive; while in our control series we have three times found the cells in excess, though the reaction was again negative. Further, the mere breaking up of nerve tissue, such as occurs in softening of the brain substance, whether post-haemorrhagic or otherwise, does not cause the fluid to react positively.

We must assume that there is a highly specific nervous lesion, occurring almost exclusively in general paralysis and tabes, accompanied by the presence in the cerebro-spinal fluid of a substance of a very special kind. It is usual to call this substance an antibody. There is, however, no ground for supposing that it is antibody in any ordinary sense of the term. Since the typhoid and other similar analogies have been abandoned, there is no valid reason to suppose that the substance is directly connected with the spirochaete in any such immediate relation as subsists between a typhoid or diphtheria antibody and its bacillus or toxin. So far as we know at present, it is merely a symptom, like the sugar in a diabetic urine. Its presence confers no immunity. It is normally found in the serum of some of the lower apes,[24] which can be readily infected with syphilis, and the infectivity of active virus is not neutralized *in vitro* by a serum rich in "antibody." In man its presence in the blood is usually taken to indicate that he is still the subject of active syphilis, which clinically may be entirely latent; and Citron[25] goes so far

* Sixteen of our paralysis cases have died since our first examination of the fluid, the diagnosis in all cases being confirmed by the *post-mortem* findings.

† One case is recorded by Levaditi and Yamanouchi, where positive result was obtained with the lumbar fluid in a case of sleeping sickness.

as to formulate this into a so-called "law," "a positive reaction denotes active syphilis." As a general statement, however, this cannot be correct. Tabes and general paralysis can scarcely be described as active syphilis, yet, as we have seen, the serum in these diseases gives a positive reaction in 70 to 90 per cent. of cases. In the spinal fluid it may be held even to be injurious rather than beneficial, since it has a definite affinity for so important a constituent of normal nervous tissue as lecithin. Further, its occurrence in the serum and spinal fluid of general paralysis and tabes, while it adds another argument to the clinical evidence connecting these diseases with syphilis, in no sense proves that connexion incontestably.

We have pleasure in thanking Dr. Mott for the interest he has taken in our work, and the assistance he has rendered us throughout. We also acknowledge with pleasure the kind assistance given us in obtaining material by Dr. Robert Jones, the Medical Superintendent, and Dr. Hughes, Medical Officer of the London County Asylum at Claybury; Dr. Bond, Medical Superintendent of Long Grove Asylum; Dr. Ingram and other medical officers of the London infirmaries; Mr. Gibbs, Surgeon at the London Lock Hospital; and Dr. Nepean Longridge, of Queen Charlotte's Lying-in Hospital for Women.

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PNEUMONIA MIGRANS INVOLVING THE WHOLE OF BOTH LUNGS, FOLLOWED BY EMPYEMA: RECOVERY.

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THE rarity of acute pneumonia lasting for over five weeks and involving the whole lung area justifies a record of the following case, in which the disease had affected *seriatim* the three lobes on the right side, commencing at the top, and the two lobes on the left side, commencing with the lower, the last involvement, that of the left upper lobe, being preceded by a localized pleuritic effusion. Such a protracted and extensive pneumonia must be a rare occurrence, and it was a matter of surprise to me that even the last phase of the disease ran quite an ordinary course.

On January 4th, 1909, I was asked to see a girl, M. D. F., aged 3½ years, and found her to have quite indefinite symptoms, without any rise of temperature. I was suspicious of pneumonia, as her father was suffering from it in the same house. The next day she had a high temperature (103° F.), but still I could not be sure of pneumonia. On January 6th I detected pneumonia, with all its typical signs, in the right upper lobe. The case progressed in an ordinary way till January 11th, when I observed an extension of the inflammation to the right middle lobe. Two days later much anxiety was caused by signs of heart failure, but happily the heart reacted well to strychnine. The following day (January 14th) there was well-marked pneumonic involvement of the lower lobe on the right side. I noted on January 15th a clearing up of the upper lobe; by January 18th it appeared to be normal. The temperature had kept up till now, varying from 101° to 105° F., but on the evening of January 19th it dropped to normal. The following day it rose to 104.6° F., with clear evidence of pneumonia in the left lower lobe. This fresh attack ran an ordinary course, the temperature only falling on January 29th.

On January 27th I had noted that the right base appeared practically normal. The next spread of the disease was on January 30th, when there were indefinite signs of trouble over the left upper lobe with an increase of temperature. The breath sounds were tubular and distant and percussion was dull; there was no increase of vocal fremitus or resonance. Over the left lower lobe there was undoubtedly no fluid, the breath sounds being tubular and loud with vocal fremitus and resonance both increased. But I could not satisfy myself as to whether the condition in the left upper lobe was pleuritic effusion, or pneumonia, or both. This was cleared up on February 3rd by exploration through the third interspace in the anterior axillary region when I drew off some perfectly clear yellowish-green fluid. Exploration over the left lower lobe by sterilized needles at different places gave negative results. The child's breathing being very embarrassed, I aspirated the localized effusion over the left upper lobe, withdrawing 12 oz. of clear fluid. This gave much relief and the left upper lobe after the aspiration was quite resonant on percussion. But the temperature never came below 100 4° F., and on the morning of February 4th there was conclusive evidence of pneumonia in the left upper lobe, the resonance being impaired and the breath sounds assuming a high-pitched tubular type. This last attack of pneumonia also ran an ordinary course till February 10th, when the temperature fell to 98° F. after having been up almost uninterruptedly for thirty-six days.

With the child shockingly reduced by the long illness, I fain hoped that some degree of acquired immunity would succeed in cutting short the latter attacks. The only comfort was that there was no other lobe to become involved. For a week the temperature remained down, but the child was in a pitiful state of weakness. Sickness supervened on February 17th, with a rise of temperature, and the child began to go downhill rapidly. The left base had never regained its resonance, but now it became absolutely dull, with distant bronchial breath sounds. On February 22nd the child's condition was extremely grave, but as the temperature kept down I waited and watched for a day or two longer. An increase of dyspnoea on February 25th induced me to explore the left base, when I found pus. The following day, with the kind assistance of my neighbour, Dr. Menzies of Wolsingham, I resected 1½ in. of the eighth rib in the posterior axillary line under local anaesthesia. I avoided a general anaesthetic on account of the weak and septic condition of the child, and I was more than satisfied with the efficacy of the local anaesthetic. The child lay still without making a cry when I excised the rib. A large quantity of pus was evacuated and two parallel rubber drainage tubes inserted. The case progressed favourably until a week after operation, when defective drainage caused some rise of temperature. I then irrigated the cavity daily for a few days with weak perchloride solution, followed by saline solution, and this brought away considerable masses of stinking pus clot. The after-progress was uninterrupted. Six weeks after operation she was healed up, strong, and running about with an expanded left lung.

I regret that nothing was attempted in the way of vaccine treatment, but in a scattered country practice such a refinement is hardly practicable.

THE CAUSES OF OBSTRUCTION PRODUCING CYANOSIS DURING THE NASAL ADMINISTRATION OF NITROUS OXIDE.

BY F. TREWBY, M.R.C.S.,

ASSISTANT ANAESTHETIST TO ST. BARTHOLOMEW'S HOSPITAL; HOUSE-ANAESTHETIST TO THE ROYAL DENTAL HOSPITAL.

AFTER careful observation and examination of some thousands of gas administrations I have come to the conclusion that cyanosis in ordinary cases is merely mechanical, being mainly due to the size and shape of the palate and tongue.

The tongue varies from the large flabby to the compact muscular variety. While at rest, when the tip of the tongue is on the posterior surface of the lower incisors, the base of the tongue in the former variety may be ¼ in. above the level of the grinding surface of the second molars, in the latter it may be well below the junction of the tooth and gum margin. The importance of the soft palate is its variable length; it may overlap the base of the tongue by an inch, or it may be separated by an aperture of an inch.

I. When these structures give rise to the greatest obstruction to free breathing, the patient has a large flabby tongue and a long, overlapping soft palate; the distance between the two is slight, or they may be in contact. Even to start with, the patient may find some difficulty during expiration, as the oro-pharyngeal aperture (by this I mean the aperture bounded above by the soft palate, at the sides by the pillars of the fauces, below by the base of the tongue) is small. Immediately the soft palate loses its tone, being placed at a sloping angle with the base of the tongue, it acts as an inspiratory valve, and is pressed down on the base of the tongue during expiration. This state of affairs may easily be brought about much earlier if gas is given under much pressure through the nose-piece, as the gas passing back into the

naso-pharynx forces the soft palate against the base of the tongue, thus making expiration through the mouth impossible. At this stage, with the soft palate and base of the tongue in contact, if there is no valve at the upper part of the bag, nasal "to and fro" breathing into the bag commences, the patient gradually becoming cyanosed. If there is a valve to prevent this rebreathing, then the only possibility of respiration is by forcing the nose-piece slightly off the face, thus allowing the expired air to escape around it; this obstruction to respiration quickly causes cyanosis. It is quite easy to keep this class of patient unconscious with the ordinary nose-piece, but only at the expense of cyanosis.

II. In a patient who has a small, compact tongue, a short soft palate, the two being widely separated and therefore giving rise to practically no obstruction to respiration, one obtains an ordinary gas anaesthesia; but remove the mouth cover, and continued nasal administration will have very little effect. Even if nitrous oxide is passed rapidly through the nose, the rate of diffusion is so rapid that the patient obtains a mixture of gas and air, which is insufficient to produce anaesthesia; these patients can be controlled by placing an expiratory valve in the fauces.

Between these two extremes are varieties of tongues and soft palate which during the administration give rise to more or less obstruction to respiration, with a corresponding amount of cyanosis or gas anaesthesia.

The most important point dependent on the construction of the fauces is the occurrence of nasal "to and fro" breathing when the soft palate comes in contact with the base of the tongue; this may be brought about by other factors. In cases in which the soft palate does not reach the base of the tongue the slight cyanosis of the gas administration causes the tongue to swell up sufficiently to fill up the space between them. If the oro-pharyngeal aperture is of the largest type, the tongue during an ordinary administration will not swell up sufficiently to reach the edge of the soft palate, and nasal "to and fro" breathing does not occur; but in the average nasal administration during the continuation one observes that the patient is kept cyanosed and the tongue swells up and lessens the oro-pharyngeal aperture; in this way the oral air-way is occluded, and the patient must obtain pure gas by the nose.

It has been stated that "after normal consciousness is lost, a period follows in which psychical disturbances ensue; at this stage there is frequently a change from 'naso-oral' breathing to 'to and fro' nasal breathing, which is evidenced by escape of expired gases around the nose-piece. This is so frequent that it has been taken as a useful sign of unconsciousness and approaching anaesthesia; even the firm application of the mouth cover throughout the inhalation had little if any effect in modifying this phase." The following case will explain the reason:

The patient had a large flabby tongue with an overlapping palate; when anaesthetized with the ordinary nose-piece, the mouth cover being placed in position, for three breaths the valve worked; then "to and fro" nasal breathing commenced, and expired gases tended to escape round the nose-piece, and no air was expired through the mouth. Now, according to the above statement, after four breaths this patient should have been unconscious and nearly ready for operation. What had happened was this: The space between the base of the tongue and soft palate being narrow, directly expiration occurred the soft palate was first pushed against the base of the tongue, and then bulged forwards into the mouth, forcing some of the air out of the mouth and through the valve of the mouth cover. When inspiration started, a slight *minus* pressure formed in the mouth, shown by the valve of the mouth cover being slightly drawn in; as neither gas nor air could enter the mouth, the soft palate was kept fixed down on the base of the tongue. I should describe this as "false action" of the mouth cover, giving rise to early nasal "to and fro" breathing, putting the valve of the mouth cover out of action, and completely obstructing breathing through the mouth.

Whether gas is given by the nasal or ordinary method, the fact remains that the oro-pharyngeal aperture is always obliterated, or nearly so, before the naso-pharyngeal aperture is in any way affected, and the breathing gradually tends to become nasal. This can be easily demonstrated; if gas be given by the face-piece method, when one is near the end of the administration, the face-piece is still kept on, and at the same time the nose is compressed, unless the palate is of the short variety, it gives rise to obstruction to expiration.

Besides the condition of the fauces causing obstruction and giving rise to cyanosis, cyanosis in itself gives rise to obstruction of free breathing in the later stages, the swelling and falling back of the tongue giving rise to false stertor; I have noticed that this trouble occurs to a marked degree in patients with receding chins.

Cyanosis causes distension of the large veins of the neck; and, as is well known to every one, a collar or piece of tape, which was quite loose at the beginning is, if the administration is pushed until the patient jactitates, found to be pressing tightly round the neck, the measurement of the neck having increased ¼ in. in circumference. This is clearly due to distension of the superficial veins of the neck, as it is not likely that a structure like the cervical fascia can stretch much. In cases of oedema or suppuration beneath the deep cervical fascia, one is struck by the severe dyspnoea that occurs from pressure beneath this structure without any apparent general swelling of the neck.

If the superficial veins external to the cervical fascia be compared with the deep veins of the neck, one realizes what the pressure in these huge veins must be, on the soft tissue, beneath a fixed structure like the cervical fascia.

The parts likely to be affected are the laryngeal opening, which may get pressed back against the wall of the pharynx, and the space just above the larynx, where the tissue is extremely vascular, and it is quite easy to imagine how, with the increased tension within the cervical fascia occurring in asphyxia, the air-way here may be completely obliterated.

It has been stated that "by compressing the nose at the end of an ordinary administration the patient is more likely to stay under for several extra seconds." This is a general experience; we can conclude that the compression causes obstruction of free breathing, if at the end of an administration instead of compressing the nose we place an ordinary nose-piece over the nose, we completely obstruct expiration through the nose, the nasal air-way being at this stage of the administration the chief means the patient has of breathing.

From the fact of the occurrence of nasal "to and fro" breathing during the induction of anaesthesia by nitrous oxide, and that in the later stages of the induction the respiration is almost entirely by the nose, I draw the conclusion that any nose-piece without an expiratory valve on it causes unnecessary obstruction and cyanosis, not only while anaesthesia is being induced, but also during the continued administration.

THE TREATMENT OF SOME CHRONIC INFLAMMATIONS OF THE EYE.

By C. G. RUSS WOOD, F.R.C.S., L.R.C.P.,
SURGEON TO THE SHROPSHIRE EYE, EAR, AND THROAT HOSPITAL, ETC.

SOME three years ago Professor Burnham of Toronto published a small book[1] describing in detail a method of treatment of chronic ocular inflammatory conditions, especially irido-cyclitis and sympathetic ophthalmia. My attention was drawn to this by Mr. Stanford Morton, who advised its use in a case, which we were seeing together, of severe irido-cyclitis, with nearly total loss of the anterior corneal layers.

The "combined" treatment, as it is termed by Professor Burnham, consists in the administration of mercury and potassium iodide, combined with the daily hypodermic injections of pilocarpin, his hypothesis being that the pilocarpin arouses and stimulates the ordinary physiological processes to activity in excess of the normal, so that the tissues are more easily acted upon by the mercury and potassium iodide. It is, of course, in the experience of every one that in certain chronic inflammatory

conditions of the eye mercury and potassium iodide are very uncertain in their action, sometimes much benefit resulting from their administration, and in other cases the results are *nil*.

I used this treatment in several cases, with much benefit, and in some patients who had previously been treated by other methods without good results; but in my experience the pilocarpin produced such profound depression when injected daily for ten or more days that I cast about to see if there was not some other method of stimulation of the ordinary physiological processes without this great drawback. In fact, in certain cases, the depression was so profound that the patients, although acknowledging their vision was better, refused to continue the treatment, remarking that the remedy was worse than the disease.

Of course the ordinary hot-air bath suggested itself, but was discarded as being too cumbrous, and finally guaiacol was recommended to me by a colleague. It is, I believe, not generally known that if a small quantity of guaiacol be smeared on the skin, profuse diaphoresis results in about one hour.

I have now tried this method in nearly 40 cases with most excellent results, irido-cyclitis, vitreous opacities, and interstitial keratitis seeming to be the most suitable conditions for the treatment.

The following is the routine usually employed: The urine is examined, and the mercury is omitted if any albumen is found. The ordinary alterative mixture of hydrarg. perchlorid. gr. $\frac{1}{16}$ and potas. iodid. gr. v is given thrice daily; sometimes instead of the above hydrarg. c creta gr. 1 is given in a pill thrice daily, together with a mixture containing potassium iodide and tincture of nux vomica. The patient is kept in bed between blankets with two hot-water bottles, then 1 drachm of a mixture of equal parts of olive oil and guaiacol is smeared, not rubbed, either in the axilla or over the epigastrium. If this dose does not suffice then 2 drachms are used, and in rare cases three, but mostly 1 drachm is enough. The part is covered with oil silk, and a pad of wool is applied over the silk. A hot drink is now given, and profuse general perspiration begins in from one to two hours and lasts for about five hours. It is difficult to make some patients perspire, and in these cases a hot bath beforehand assists and hastens diaphoresis. In one patient some irritation of the skin was produced by the guaiacol, but this was practically well in a week on ceasing the treatment; but the skin in this case was too irritable to stand the application on the same place two nights in succession.

Generally twelve applications are made, and then treatment is stopped for a few days and begun again if considered necessary. As a rule, the patients are kept in bed the whole time, but occasionally when the applications are made in the morning, I allow them to sit up for an hour or so in the evening, well wrapped up.

Our experience at the Shrewsbury Eye Hospital is that guaiacol is a far more certain diaphoretic than pilocarpin, and does not produce the after-depression of the latter drug, while the results are, as far as I can see, equally good.

I have not tried it in any very acute cases, but there does not seem any reason against its use in these conditions. Among the eye diseases for which this modification of the "combined" treatment has been used are interstitial keratitis, irido-cyclitis, vitreous opacities, sympathetic ophthalmia, and optic neuritis. In all there was some benefit, and in some the results were remarkably good. Very many of the patients had been previously treated with ordinary routine methods without good results. Certainly in syphilis the condition is more quickly controlled than when mercury and iodide are used alone. Recently I have been using this treatment in a case of syphilitic perichondritis of the larynx with very good results, when previously the use of mercury and potassium iodide has not influenced the condition very appreciably.

The idea of treating syphilis with diaphoretics and mercury is not new, but has, I believe, been carried out for some years, with the object of shortening the treatment.

REFERENCE.
[1] *The Combined Treatment of Diseases of the Eye.*

HYDATID DISEASE: RECURRENCE: EXTERNAL RUPTURE: RECOVERY.

BY ARTHUR W. BRODRIBB, M.A., M.B.OXON., L.R.C.P.,
ASSISTANT PHYSICIAN EAST SUSSEX HOSPITAL, HASTINGS.

IN October, 1908, there were published[1] in this JOURNAL notes of a case under my care of hydatid disease in an old lady, in which the disease appeared to be situated in Douglas's pouch. Rupture occurred into the rectum and large numbers of hydatid cysts were discharged. Recovery followed, and for three months the patient seemed completely well.

On October 12th, 1908, I was called in again, as she was in great pain in the abdomen, and was shivering. The temperature was 101°, the pulse feeble, and respirations rapid. I found some sharp crepitations at the left base, and in the abdomen a tender swelling to the left of the umbilicus, dull to percussion, and about the size of a seven months' fetal head. It appeared probable that there was recurrence of the hydatid disease, and possibly some pneumonia setting in, as she was suffering also from a short, painful cough. There was no obstruction in the bowels, as in the former illness.

The next day she was better, the temperature 100°, and the cough and crepitations less. By October 16th the chest symptoms had disappeared, the temperature had fallen to 98°, and the pulse to 88, but the patient did not seem so well; the abdominal pain was greater and the abdomen decidedly larger, the tumour developing a resonant prominence to the left and below the umbilicus. In the left flank there was some resistance and impaired percussion note, and great tenderness.

During the next week her condition varied; at times the abdomen was enormously distended with flatulence, and the tumour was larger, the skin over it becoming red and oedematous. The whole of the left side of the abdomen and left flank was dull to percussion. On October 26th the prominence was much larger, the skin more angry in appearance, and she was extremely weak.

On October 29th she passed from the bowel about a pint of mud-coloured liquid, very offensive, but containing no cysts. The next day she passed another three-quarters of a pint, and was evidently relieved; the abdomen was smaller and less tender. During the next few days she seemed better, but the tumour began to increase again, and the condition of the skin became worse. On November 6th she was decidedly worse, and became delirious. Small beads of clear fluid began to ooze through the skin over the tumour from two minute holes. In this way large quantities of clear fluid came away during the next few days, the small holes developing into wounds half an inch long with jagged edges. No cysts were passed. The tumour became rapidly smaller, and the general condition of the patient improved. On November 11th, instead of clear fluid, white creamy very offensive pus was coming away. The wounds were beginning to heal, and an attempt was made to keep them open to get as much drainage as possible. The tumour no longer projected. Within ten days of the first discharge of liquid the tumour had disappeared, and no further discharge occurred. The wounds healed remarkably quickly. The patient made a rapid recovery, and is now in splendid health, in spite of her age, which I believe to be well over 80. She seems none the worse for her two severe illnesses.

The contrast between the two illnesses was chiefly marked by the different direction in which the cyst pointed. Probably the peritoneum was the seat of the trouble, and it may have been the same large cyst in each case, but in the first illness it pointed into the colon, which was almost blocked by it. This cyst refilled, and fortunately pointed, and burst, externally. An alternative view is that in the second illness an entirely new hydatid cyst developed, and the fluid was drained off through the abdominal wound, leaving the daughter cysts within where they have atrophied.

A hydatid cyst situated in the peritoneum can only point in four ways: (1) Into the gastro-intestinal tract; (2) into the bladder; (3) into the peritoneal cavity; (4) externally.

REFERENCE.
[1] BRITISH MEDICAL JOURNAL, vol. ii, 1908, p. 1271.

INTRA-ABDOMINAL HAEMORRHAGE ASSOCIATED WITH LABOUR.

BY MAURICE C. BARBER, M.R.C.S.ENG., L.R.C.P.LOND.,
STAPLE HILL, BRISTOL.

THE intra-abdominal haemorrhage which occurred in the following case must, I think, be a very unusual complication of labour.

C. B., aged 32, enjoyed good health until the age of 15, when her mother says she was paralysed in both lower extremities for

five years, and it took another five years to completely regain the power of her limbs. She had been married about six years and had had five children, but all died from convulsions. During the whole time she was carrying the sixth child she had been suffering from diarrhoea and vomiting, the vomiting being so troublesome that she could not take sufficient food.

The labour began on the evening of November 13th, 1908. When I saw her at 8.30 p.m. the os was about the size of a five-shilling piece, and pains were occurring about every ten minutes. The labour progressed in the ordinary way, and she was delivered of a full-term child about 12.30 a.m. on November 14th. There was no great loss of blood at the time, or after, externally. On leaving the patient the womb could be felt hard and contracted. The pulse was 85. I saw her again about 5 30 a.m., as she complained of feeling very faint. There was slight abdominal distension, but the womb still well contracted, and the pulse 90. She remained in much the same condition during this day; she was very weak and exhausted, but no more than one would expect, considering her condition before labour.

On November 15th the general tympanitic distension increased very much. She vomited frequently, and complained of general abdominal pain. The temperature was normal, but the pulse was 120. For the first time the mother said her daughter, just before sending for me, whilst walking about, suddenly called out, "Oh, there is something gone!" and said she had severe pain in the lower part of the back, and a feeling as if something had snapped in the bowels. She was very faint, and perspired a good deal; but, after sitting down, she felt better, and thought no more about it.

About 10 p.m., on November 15th, she was removed to the Bristol Royal Infirmary, and was admitted under Mr. Mole, who has very kindly supplied me with the following notes.

NOTES BY MR. H. F. MOLE, F.R.C.S.

Condition on Admission.

Patient was very pale and collapsed, the pulse was small and rather rapid (128). The temperature was only 97° F. The abdomen was greatly but uniformly distended; it was tympanitic, except on quite light percussion in the flanks. This dullness disappeared on deep percussion, and I could not satisfy myself that it shifted when the patient lay on her side. The abdomen moved well, and no localized resistance could be felt.

On bimanual examination the uterus was found to be freely movable, but the fundus could not be defined, owing to the abdominal distension. The external os uteri was contracted. She presented the appearance of a person who had lost a large quantity of blood, and I attributed the distension to intestinal paresis following childbirth. She was given a T.E. with a fair result.

The next morning her condition was much the same; if anything, the tympanites was more marked. Laparotomy was performed that morning.

Operation.

The abdomen was opened by a median incision, which extended at first from the umbilicus to the pubes, and was afterwards enlarged in an upward direction for about another inch. The intestines, and particularly the stomach, were markedly distended; the peritoneal cavity was filled with blood—dark, some clotted, some fluid—there was nothing to suggest that bleeding was going on at the time.

The blood and clots were partially cleared out, but no evidence was forthcoming as to whence the blood had come, after the most careful examination. The uterus was large and soft.

The patient vomited several times during the ensuing twenty-four hours, but the bowels were well opened by enemata, and the abdominal distension rapidly subsided.

The patient was discharged on December 16th, wearing a belt, but with the wound soundly healed.

Mr. Mole is of opinion that the bleeding must have come from some vein in the pelvis—perhaps in the broad ligament—but there was no evidence of it at the time of operation.

If the bleeding had been more severe, the patient would have died during labour, which, besides being very distressing for the friends, would also have been damaging to the doctor in attendance, although in no way to blame. Probably the vessel gave way when she complained of the pain.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A POINT IN THE USE OF KOLLMANN'S URETHRAL DILATOR.

HAVING recently had occasion to use Kollmann's urethral dilator, I found that the blades as they were being screwed back into their unexpanded position were apt to nip off small portions of the urethral mucous membrane, greatly to the discomfort of the patient. To avoid this, I placed a thin rubber covering over the instrument, which did not materially interfere with the expansion of the blades, but prevented the approximating blades from including any tissue. A rubber tube similar to that employed in the Luys's segregator worked admirably. The difficulty experienced in getting the tube over the dilator was easily overcome by using soap as a lubricator. The mechanism was also protected from soiling by contact with the urethra. Anyone using this instrument will find this plan an advantage.

Glasgow. ALEX. MACLENNAN.

UNILATERAL DEVELOPMENT OF THE MAMMA IN THE MALE.

ON page 1006 of the JOURNAL of April 24th there appears a most interesting report entitled, "Apparent Unilateral Development of the Mamma in the Male."

In examining conscripts for the Siam Police, about 500 men during the last six months, I have met with two such cases, both on the left side and both secreting a "clear fluid." In these cases there was no aesthetic feeling about the abnormal tissue, and I am, therefore, unable to append a microscopical report.

JAMES C. FYSHE, B.A., M.D., D.P.H.,
Assistant Medical Officer of Health, Bangkok, Siam.

BIOTRIPSIS.

MR. LENTHAL CHEATLE'S paper in the BRITISH MEDICAL JOURNAL of June 12th on what he designates "biotripsis," and the coloured illustration which accompanies it, serve to remind me of a somewhat similar case which came under my observation many years ago.

An old man, an agricultural labourer, was admitted into the York County Hospital in a weak and failing state of health, for which, apart from his age, there was no obvious cause, beyond a curious dry, chronic rash on the backs of the hands, and the malar prominences of the face, obviously of neurotrophic origin. I had had some experience of skin affections, having been house-surgeon to Sir (then Mr.) Jonathan Hutchinson, and having attended his clinical lectures on diseases of the skin, but I had never seen anything resembling the condition presented by this old agricultural labourer. I could make nothing of the rash, nor could I influence its course in any way. It was pigmented and had the appearance of heaped-up epidermic scales; it was absolutely symmetrical, and it did not give rise to irritation or discomfort of any kind. I had it photographed with a view to publication, but the picture did not convey any clear idea of the condition. After some weeks' residence in hospital, during which time the rash did not undergo any change, the old man died from asthenia.

London, W. OSWALD BAKER.

ARSENIC IN LOCOMOTOR ATAXY.

IN view of the important discoveries in experimental medicine as regards the use of arsenic against spirochaetes, my own experience of the drug may be of interest. I have used it in several cases of locomotor ataxia with eye symptoms, some of which have benefited greatly. In two cases the severe lightning pains quite disappeared. In one very bad case in which the patient was almost unable to walk, and whose efforts to do so were painful to witness, a series of ten injections helped him to the extent of ridding him of his distressing pains, and enabled him to come to the hospital without any assistance—indeed, he comes quite alone now.

A few words may be in place as to the method of administration. I use soamin,[1] and it is quite unnecessary to give it intramuscularly. The following are the most important points in the technique of injection:

(*a*) Dissolve the soamin in not less than 2 drachms of water. If this is not done, and the injections are made in the subcutaneous tissues, very unpleasant and slightly painful indurated masses remain for several weeks. Adequate dilution prevents this effectually.

(*b*) After injecting the last of the soamin, inject a little sterilized water, so as not to leave arsenical solution in the needle track.

(*c*) Apply firm pressure over the little wound, and a few seconds later put on a film of cotton-wool and paint with collodion.

[1] BRITISH MEDICAL JOURNAL, 1909, vol. i, p. 370.

(*d*) On finishing with the syringe, wash it out in sterilized water, then draw absolute alcohol up in the needle, which is then detached, and it and the various parts of the syringe kept in absolute alcohol.

(*e*) Before using the syringe, wash the alcohol out of it and the needle by drawing up sterilized water. If this is not done, not only should we inject an irritant, but the syringe would act with difficulty.

London, S.W. CHAS. WRAY, F.R.C.S.Eng.

ACUTE TUBERCULOUS ARTHRITIS.

THERE are few conditions more calculated to make the medical practitioner think carefully before committing himself to a definite diagnosis than what seems to be at first sight acute articular rheumatism. Owing to the fact that a clinical picture, the same to all appearance as that of rheumatic fever, but having an entirely different pathogenesis, may present itself, it is imperative in all such cases to institute an exhaustive examination in order to discover what etiological factor is really present, otherwise error is not unlikely to occur, as happened in the following instance:

F. I., a farm servant, aged 23, was seized last April with a sudden attack of illness, which showed all the characteristic features of rheumatic fever, and which was diagnosed as such. Four weeks from the beginning of his illness he was admitted into Driffield Cottage Hospital, when well-marked signs of pulmonary tuberculosis were found. These signs continue to progress.

I think this case worth recording, as it does not appear to be sufficiently well recognized that what seems to be ordinary rheumatic fever is occasionally the initial stage of an attack of tuberculosis.

An interesting and valuable article on this subject appeared in a recently issued number of that excellent serial, *International Clinics* (nineteenth series, first volume), in which the following suggestive passage occurs:

> It cannot be too often repeated that the diagnosis of rheumatic polyarthritis has no longer any significance whatever in our days; we must penetrate beyond this superficial symptom-complexus, and endeavour to discover by all the means at our disposal a complementary pathogenic epithet. If we take the trouble and know how to search, we will find out at an early date in many cases that the rheumatic inflammation is only a striking symptom of an infection that is hidden, and is not a disease in itself.
>
> In tuberculosis more than in any other infection it is of the greatest importance to be sure as to this pathogenesis, and army surgeons in particular will find therein one of the most valuable premonitory signs of incipient tuberculosis.

Driffield. JOHN R. KEITH, M.D.Aberd.

RIGOR MORTIS IN A STILLBORN CHILD.

THE mother was admitted to the Birmingham Maternity Hospital with haemorrhage, at eight and a half months in her eighth pregnancy. She remembered feeling the child move as usual, and had been quite well till four hours before admission, when suddenly haemorrhage began, and she had cramp pains in both legs.

On admission she was having strong labour pains; no fetal heart could be heard; the vagina was packed, and there was no external haemorrhage. Delivery was natural five hours from the onset of haemorrhage, and the placenta was expelled immediately after the child.

There was no difficulty with the head, and the child was a good colour, but the cord was not pulsating. Artificial respiration was at once attempted, and it was then discovered that the mouth was firmly closed, and the whole body rigid; the back was slightly curved, and the arms and legs flexed on the trunk. The surface of the placenta was unusually smooth, and was covered with recent blood clot; the membranes were ruptured centrally, and contained 20 to 30 oz. of clot, and the cord was an ordinary length.

In reading through the reports of other instances of rigor mortis in the stillborn this case seemed particularly interesting, since the mother was so sure that the child was alive five hours before delivery.

Birmingham Maternity Hospital. C. EGLINGTON, M.B., B.S.

Reviews.

CONTRACTED PELVIS.

DR. E. SCIPIADES, an assistant in the clinic presided over by Professor Tauffer at Budapest, has analysed the results during a period of ten years[1] in that clinic, from January 1st, 1895, to December 31st, 1904. During this period 6,877 women were delivered, of whom 949 had contracted pelves. We gather from the preface that the author's native tongue is Hungarian, for this work was first published in that language. His first 81 pages are occupied with quotations and comparisons of the opinions of various German, French, and Hungarian writers upon midwifery. English literature appears to be a sealed book to him. Perhaps he will think it an exemplification of national vanity if we say that if he could read English he might learn a good deal. He has only dimly conceived the principle that contraction of the pelvis is only a relative term. A pelvis below the average size will allow the easy, spontaneous delivery of a small child, and a pelvis of average dimensions will obstruct the delivery of a child of excessive size. This being so, the percentage of cases in which, with contracted pelvis, natural delivery took place, only roughly shows the percentage of children below the average size. To be obstetrically interesting it should be accompanied by a statement of the average weight of the children, those spontaneously delivered, and those whose birth was assisted. Later on the author does classify the case according to whether or not the child exceeded 3,000 grams in weight, but this is a very crude way of testing the effects of different kinds of pelvic contraction.

Dr. Scipiades finds that the prognosis for the child in a case of contracted pelvis in which spontaneous delivery is allowed to take place is somewhat more unfavourable in a multipara than in a primipara. This he attributes partly to the greater frequency of congenital lues in the children of multiparae, partly to the prolongation of labour due to the greater development of the child's head. For the latter reason he thinks the induction of premature labour is more clearly indicated in a multipara.

His experience of the high forceps operation in contracted pelvis is not satisfactory. He has delivered four primiparae in this way, with one maternal and two fetal deaths. But why? The explanation is on the surface. The duration of labour in these cases was 56 hours, and the interval between the rupture of the membranes and the birth of the child was 53 hours 23 minutes (we presume these figures are averages). The bad results were not from the forceps delivery, but from the postponement of assistance.

Taking all classes together, there were 42 cases of high forceps operation. In no less than 10 the operator failed to drag the child through the brim, and had to perforate. The time between the rupture of the membranes and delivery was 31 hours 22 minutes, the duration of the labours 46 hours 13 minutes. It appears to us that the forceps in these cases should have been used much sooner. The 10 cases of perforation after attempts at forceps delivery are so many failures in diagnosis of the relative size of the head and the pelvic brim. Had a correct diagnosis been made early in labour the forceps would not have been thus misused. In our author's opinion, the high forceps operation in primiparae is a grave undertaking, which often fails, and saves but few children. We agree, when it is attempted without properly estimating the relative size of the child and the pelvis, and postponed until the labour has lasted two or three times longer than it ought to have done.

The obstetric authorities at Budapest were not acquainted during the period of which this volume is the record with subcutaneous symphysiotomy. There were 2 cases of symphysiotomy. One of the patients had been in labour 70 hours, the other 44 hours. How can a smooth convalescence be expected when the cases are allowed to linger on like this? There were 3 pubiotomies, and one of the patients left the clinic with a vesical fistula. Comparing these two operations, Dr. Scipiades says that the technique of symphysiotomy is more difficult (he does not

[1] Aus der Zweiten Frauenklinik der königl. ung. Universität in Budapest (Direktor: Hofrat Prof. Dr. Wilh. Tauffer): *Ueber die Behandlung der Geburten bei engen Becken.* Von Dr. E. Scipiades, Assistenten der Klinik. Berlin: S. Karger. 1909. (Imp. 8vo, pp. 241. M.7.)

know of the subcutaneous method), the duration of the operation longer, it involves greater risk of injury and of infection, and the after-treatment is more difficult than that of pubiotomy. It is general surgical experience, he says, that a clean cut wound of a bone, as in pubiotomy, has a better prospect of healing than a wound in a joint or a cartilage. Further, injuries to structures in the middle line —bladder, urethra, and clitoris—are avoided by pubiotomy. His study of the (Hungarian) literature of the subject leads him to put the mortality of symphysiotomy at 10 per cent., that of pubiotomy at 4 to 5 per cent. Then he goes on to compare pubiotomy with Caesarean section. The technique of the latter operation, he says, is more developed, the incidental injuries of less importance, the prospect of a living child better. So that if the two operations have about the same risk to the mother, they are not to be considered as equally justifiable. But he very rationally says that in labour with contracted pelvis, which must be terminated in the interest of the mother in the case of pregnancies which have advanced to the eighth or ninth month, perforation must be done. He rejects Bossi's dilator as a means of inducing labour. He has never seen any harm from the introduction of a bougie. He has apparently not heard of Champetier de Ribes's bag, but he has used an instrument of that kind, and found that sometimes when the bag had dilated the cervix, uterine contraction did not follow, and the presenting part did not enter the pelvis. We have known the same thing. The author's advice in inducing labour is, first, a bougie, then a dilating bag; if these fail, rupture of membranes. He is not in favour of hurrying matters; we observe that in two of his cases of induction of premature labour the labour took up more than six days.

The work is an interesting record of experience and careful observation. The practical precepts embodied in it do credit upon the whole to the good sense and sound judgement of the Budapest teachers. What appears to us to be the chief defect of their teaching is the non-recognition of the possibility and the importance of early diagnosis of disproportion between the child and the pelvis, and prompt treatment following upon diagnosis. We are aware that early diagnosis is difficult and liable to error, because there is a factor that cannot be ascertained beforehand, which is the power of the fetal head to undergo compression and moulding. But granting that error may arise from want of appreciation of this factor, and that such error may, if early treatment is adopted, lead to unnecessary Caesarean sections and craniotomies, yet we think such mistakes less grave than the disasters which arise from waiting for disproportion to be made evident by the phenomena of obstructed labour. Dr. Scipiades's work deserves careful study, and we thank him for it.

INBORN ERRORS OF METABOLISM.

DR. ARCHIBALD GARROD has revised his Croonian Lectures for last year and has added the results of certain important investigations, which have been since published,[2] before printing them in the volume now before us. The principle which Dr. Garrod accepts is that the abnormal excreta with which these lectures deal are probably not really the result of a perversion of metabolism, but of the arrest of a process at some intermediate stage, and the consequent excretion at that point of the substance which otherwise would have been converted into one of the normal excreta. The inborn errors of metabolism dealt with are albinism, alkaptonuria, cystinuria and pentosuria. Little is known of their causation, but in all there seems to be the influence of heredity or of consanguinity. It is strange that the intravascular injection of nucleo-proteins should fail to produce in albino animals such clotting of the blood as is caused in pigmented ones, and still more strange is the observation of Pickering that the Norway hare in its winter coat behaves toward this experiment as an albino, but in its summer coat as a pigmented animal. Dr. Garrod maintains the intermediate product theory as the explanation of alkaptonuria, in spite of the experiments which have to some extent militated against this view. Alkapton does not appear in the urine of animals or men when tyrosin is given by the mouth, and it may be argued that if it were a normal product of metabolism, the power of further converting it would be limited, and that if given in excess it would appear in the urine. Those rare cases are curious in which alkaptonuria has been intermittent or transitory, as in that published by Zimnicki in a patient who suffered from hypertrophic cirrhosis of the liver.

Cystinuria is less rare than alkaptonuria, and perhaps of more general interest. When swallowed by a normal man, cystin is wholly destroyed in the body, and in various experiments cystin obtained by hydrolysis of hair has been administered to cystinurics without causing any increase of cystin, nor did this follow when the patient was fed with his own cystin thoroughly purified; but in one case (Loewy and Neuberg) a great increase followed the administration of 5 grams of cystin from hair, yet when cystin obtained from a calculus was given there was no increase! In spite of the accepted theory that cystin is produced by the action of diamines, the search for these substances in the urine and faeces is far from being uniformly successful, but Dr. Garrod says that if in any given instance the examination be continued sufficiently long, they may eventually be found. These diamines are themselves products of metabolism, being derived from the lysin and arginin of proteins broken down in the organism. Dr. Garrod, however, admits that it is impossible at present to form a satisfactory theory of cystinuria, though he believes it to be due to an interruption of the metabolic process at a comparatively early stage. He has paid much attention to that extremely rare condition, pentosuria. It is possible that some cases are overlooked, for, as is well known, pentose gives the ordinary reaction for sugar with Fehling's solution and other tests. But it does not ferment, and is not associated with any of the general symptoms of diabetes, although it is occasionally found in diabetes together with glucose. When alone it appears to be perfectly harmless. The failure of the urine to ferment, and the failure of fermentation to remove the reducing substance, is a sufficiently trustworthy clinical test, but Dr. Garrod recommends Bial's modification of the orcin test, of which he gives full details. The reagent as described by him should afford a ready means for detecting the presence of pentose in any suspected case.

[2] Oxford Medical Publications. *Inborn Errors of Metabolism.* By Archibald E. Garrod, D.M., M.A.Oxon., F.R.C.P., etc. London: (Oxford University Press) H. Frowde, and Hodder and Stoughton. 1909. (Post 8vo, pp. 176. 3s. 6d.)

CUTANEOUS AND VENEREAL DISEASES.

A NEW German work on cutaneous and venereal diseases[3] has been edited by Professor RIECKE of Leipzig, with the collaboration of a number of well-known dermatologists —Professors Bettmann, Bruhns, Buschke, Ehrmann, Grouven, Jesionek, Riehl, Török, and privat-docents Tomasczewski and Ritter von Zumbusch. A thorough review of the individual contributions can scarcely be attempted in this place, owing to the length of the articles. But taking the book as a whole, it may be said that the various diseases are adequately dealt with in it. One or two criticisms may be permitted. In the first place, the work of non-German writers has not received quite the amount of attention it deserves. For instance, in the bibliography attached to the section on eczema (p. 75), no reference is made to Besnier's exhaustive monograph. German writers still apparently fail to recognize Gibert's pityriasis rosea (vide p. 416), so heavy is the incubus of authority. We are told that the majority of dermatologists consider that pityriasis rosea is closely related to ringworm, that is, the maculo-squamous form of herpes tonsurans (German for tinea tonsurans, and meaning here what we call tinea circinata), although, as the writer (Jesionek) admits, the fungus has never been demonstrated in the scales of the lesions which go to make up the clinical picture (*sic*) of pityriasis rosea. For a very good reason, we would add, namely, that pityriasis rosea is a disease totally distinct from ringworm, a fact which, notwithstanding the statement of Jesionek to the contrary, is admitted by all dermatologists outside Austria and Germany. The illustrations on the whole are very satisfactory, and those showing the *Treponema pallidum* in Buschke's paper on syphilis must be referred to here. There is an alphabetical index to the work, which, though

[3] *Lehrbuch des Haut- und Geschlechtskrankheiten.* Herausgegeben von Professor Dr. Erhard Riecke. Jena: Gustav Fisher. 1909. (Supr. roy. 8vo, pp. 664. 14 coloured plates and 235 illustrations. Paper, M.14 60; bound, M.16.)

it contains errors and is in some directions scientifically behind the day, yet has a certain value as an addition to dermatological literature, if only as showing how slowly new ideas spread.

Dr. S. JESSNER, of Königsberg, whose synthetic surveys of subjects relating to diseases of the skin and syphilis are well known, has just issued a review of the diagnosis and treatment of syphilis of the skin and mucous membranes.[4] The points are dealt with in a clear and succinct manner for the use of practitioners generally. The author apparently believes in conceptional infection of women (conceptional syphilis—*choc en retour*), but paternal infection of the ovum yet remains to be proved. As is the case with most writers on syphilis, heredity is referred to in a loose manner. It will probably be admitted that the term "hereditary" strictly means the transmission of an innate biological variation through a number of generations. If this be admitted as a definition, the bottom is knocked out of the commonly used expression "hereditary syphilis." Everything points to the syphilitic infection of the child as occurring through the mother. On the whole, however, it must be conceded that Dr. Jessner's survey is reliable and readable, but his instructions as to the use of insoluble mercurial preparations might with advantage be a little more explicit. Very rightly he warns against the so-called "benign" syphilis —a very treacherous foe.

The third edition of Dr. OHMANN-DUMESNIL'S book on *Diseases of the Skin*[5] has been enlarged and revised. The intention of the author has been to furnish "just that information which is most desired by medical students and general practitioners." The book therefore aims only at giving a general account of cutaneous diseases. The contents differ little from those found in other works of the kind. There is nothing characteristic to call attention to, but evidently the work has been well received in the United States. The illustrations vary greatly as to quality. It is difficult in some to make anything out of them, owing to indistinctness and blurring. Altogether, as far as the English practitioner is concerned, he will find our own books of greater utility to him than the volume before us.

The first volume of the dermatological yearbook for the year 1905, published in 1907, has lately come to hand.[6] It was brought out under the editorship of the late Professor O. LASSAR, with the assistance of a number of representative dermatologists. As a work of reference this volume will prove invaluable to those desirous of putting their hands on 1905 contributions in the realms of skin, venereal, and genito-urinary diseases. Each section gives the full bibliography, and that is followed by a review of the chief papers. As regards the etiology of syphilis alone, there are 305 references—for 1905 only be it remembered. The mass of work got through is truly "amazing," to use an expression so dear to sensational journalism and politicians. The sections on syphilis are specially important, dealing as they do with the luetic affections of the various organs and tissues of the body. When do our Teutonic friends amuse themselves?

Among the numerous *scripta brevia* on cutaneous subjects produced so industriously by Dr. JESSNER, this second edition of his essay on the diagnosis and treatment of eczema[7] cannot fail to prove of interest, for this disorder, if the singular may be used in this connexion, meets the practitioner at every turn. The term "eczema" as ordinarily employed is elastic and covers a multitude of conditions, varying greatly in degree, extent, and aspect. The author starts off by accepting in a general way the usual definition of eczema as a catarrh of the skin, but this does not take us far. This well-worn statement is a mere analogy, and assumes, as Dr. Jessner states in so many words, that "Every medical man knows what a catarrh of the mucous membranes is." Although this is a simple way of tackling one of the most intricate subjects in dermatology, it is as unsound as it is fallacious, and leads nowhither. For a fuller comprehension of eczema, the masterly monograph by the late Ernest Besnier (*La Pratique dermatologique*, vol. ii) should be read in order to get a little deeper than the mere surface. On the whole, however, Dr. Jessner deals with the matter in a "practical" style, and gives a number of formulae for ointments, lotions, etc., which are much the same as those generally found in books on dermatology.

[4] *Diagnose und Therapie der Syphilide.* Von Dr. S. Jessner. Second edition. Dermatologische Vorträge für Praktiker. Heft 11 and 12 (Doppelheft). 1909. Würzburg: A. Stuber's Verlag. (Demy 8vo, pp. 146. M.2.50.)

[5] *Diseases of the Skin.* By A. H. Ohmann-Dumesnil, A.M., M.D., Ph.D., etc. Third edition. St. Louis: C. V. Mosby Medical Book and Publishing Company. 1908. (Demy 8vo, pp. 606, 140 illustrations. 4 dols.)

[6] *Dermatologischer Jahresbericht.* Herausgegeben von O. Lassar. Erster Jahrgang: über das Jahr 1905. Wiesbaden: J. G. Bergmann; Glasgow: F. Bauermester. 1907. (Super royal 8vo, pp. 696. 18s.)

[7] *Diagnose und Therapie des Ekzems.* Von Dr. S. Jessner, Königsberg-i-Pr. 2 Auflage. Würzburg: A. Stuber's Verlag. 1909. (Demy 8vo. In two parts, bound in one paper volume. Pp. 50 and 96 respectively. M.2.50.)

ACCIDENTS TO WORKMEN.

DR. LENOIR, in his *Conférences sur les accidents du travail et les affections traumatiques*,[8] has collected in a volume a number of lectures on accidents to workmen, delivered at the Salpêtrière in the surgical clinic of Professor P. Segond. Professor Segond in a preface discusses the question of the previous state of health of a claimant for compensation, and concludes that if there is a condition which contributes to the accident or incapacity, it ought to be taken into consideration in estimating the injury and assessing the compensation. He, however, remarks that distinguished authorities such as Ribierre, Balthazard, Reclus and Brissaud are not in agreement with him; nevertheless, he regrets that the verbal amendment to the French Law of 1898, proposed by the deputy, M. Dron, was not adopted, that full indemnity should be due only for those consequences of an accident which are direct and immediate, while in those cases in which a pre-existing defect is aggravated the compensation should be reduced. The committee, he says, rejected the amendment as unnecessary, on the ground that it was the spirit of the law.

It is probable that if such a principle were generally arguable in English arbitrations, the members of our own profession would be even more interested than they are at present, while the members of the final court of appeal would probably frequently be called upon to frame definitions under a provision of this kind, simple as it may look. The legal mind appears to be as bounteous a gift of the gods in France as it is in England.

The author's duties as medical officer to the Paris-Orleans Railway Company give him opportunities for forming his opinions, and he most vigorously supports the view expressed by his chief in the preface. The observations on hernia are interesting, and in respect of the inguinal variety it is stated that in France there is a general tendency to admit a predisposition if the canal admits a finger, is abnormally short, and the walls thinned. Dr. Lenoir is of opinion that hernia is more frequently a disease than an accident, that there is very often a predisposition but that there may be such a thing as acute traumatic hernia. The rules as to examination are excellent, and the author is courageous enough to apply his principles to a case of successful radical operation in determining if the primary condition was due to accident; he notes the risk of recurrence if the wound has suppurated, and believes that as the radical treatment is not without mortality the patient should not be forced to undergo it. On the relation of appendicitis to traumatism, the conclusion arrived at is that it is very doubtful that trauma or effort can initiate the disease in a healthy appendix, but it may provoke an attack in chronic or latent cases, and may, by producing a peritoneal reaction, cause a predisposition to the disease. The observations on lumbago lead us to think that "bad back" is as troublesome a complaint in France as it is here. Torticollis of rheumatic origin or from rupture of muscular fibres as an industrial accident is not very common with us, and also very occasionally do we meet the *coup de fouet*, which is recognized as not exclusively rupture of the plantaris, but may have as a cause a tear of deep veins in the leg. In the discussion of hygroma and suppurating callosities the only point that need be noted is that it is stated that the courts have a tendency to exact proof of accidental

[8] *Conférences sur les accidents du travail et les affections traumatiques.* Par le Dr. O. Lenoir, Médecin principal adjoint de la Compagnie Paris-Orleans; préface de M. le Professeur Segond. Paris: Vigot Frères. 1909. (Post 8vo, pp. 249. Fr. 3.50.)

infection. With regard to orchitis due to effort or strain, Dr. Lenoir, after giving the various theories, concludes that such an etiology can hardly be accepted, that effort may be contributory but cannot alone cause the disease, and that in such cases an examination of the genito-urinary tract will show an infection. The book is a useful contribution to the subject of accidents to workmen, and as such will be serviceable; only a few conditions are treated, but we understand that it is intended to publish a further series.

TWO HOSPITAL REPORTS.

THE present editors of the *St. Bartholomew's Hospital Reports* for 1908[9] wisely undertook, when preparing the last volume, to divide the articles into "medical papers" and "surgical papers," and they maintain that arrangement in the present issue. It might even be suggested that a more minute division would be desirable. Thus the records of obstetrics and gynaecology form a very distinct subdivision in medical literature, and purely scientific memoirs like Dr. J. F. Halls Dally's thesis on the Diaphragm in Man should not be classified under surgery. We hazard these suggestions because we sympathize with the editors of these *Reports*, and feel that they are doing their best to make the series really useful by facilitating reference. Archives of this kind, like those published by societies, are too apt to assume the character of a mausoleum from which their precious contents become yearly more and more difficult to disinter. Hence the arrangement of the tables of contents volume by volume is a matter of importance, and it is satisfactory to find how well it is carried out by the editors, one of whom, Mr. ECCLES, performed another praiseworthy task a few years ago, preparing a general index of a score of volumes of the *Reports*. A complete review of the contents, of necessity somewhat variegated, is impossible. Dr. Dally's paper, based on a Cambridge thesis, is a good solid piece of anatomical work, worthy of imitation. It is a record of our present knowledge of the development, relationships, structure, and mode of action of the diaphragm. Mr. Sheffield Neave, of the Wellcome Research Laboratory, Khartoum, writes on sleeping sickness as one who has, and is admitted to have, authority. He and his son, Mr. S. A. Neave, spent a year quite recently in Katunga, studying the *Glossina palpalis* and the disease which it causes in man. He declares that *G. morsitans*, which infects horses and cattle with a deadly trypanosome, does not convey to man the germ of sleeping sickness. Mr. Neave's important contribution on *Leishmania donovani* in the Soudan, published in the JOURNAL for May 28th, 1904, will be remembered by those of our readers interested in tropical diseases. Mr. Sydney Scott contributes an important article on the histology of the human labyrinth in meningitis, with photomicrographs. Mr. D'Arcy Power writes on the surgery of the spleen, giving two after-histories of cases in his own practice worth remembrance. There are some good short clinical and pathological papers; we may specially make note of Mr. R. C. Elmslie's memoir on sarcoma developing in bones already subject to osteitis deformans.

The greater part of the *St. Thomas's Hospital Reports*[10] consists of the statistical tables of the medical, surgical, obstetrical, and special departments of the hospital for 1907, with Mr. Shattock's catalogue of recent additions to the museum, all, we need hardly add, highly instructive. The report of the physical exercise department for 1907 is of special interest. After October 1st, 1906, the entire working of the department was entrusted to Mr. Richard Timberg of Stockholm, with a duly trained and qualified lady assistant. Hitherto there had been a lack of any person capable of undertaking the treatment of male cases. The difficulty being overcome, a fair proportion of male patients soon made their appearance, but the increase in cases required removal of the department to more spacious quarters, and this could not be effected until 1907; then the exercises could be practised three times weekly instead of twice a week as before; 99 males and 101 females were treated in 1907, making 200 in all. Out of these, 61 (47 being females) were cases of all forms of spinal curvature; 19 men and 4 women were treated for "results of fracture"; 6 men and 9 women for pes planus and evertus, 11 men and 3 women for loose semilunar cartilage in knee-joint, whilst the remainder were under treatment for over thirty different maladies. Mr. Timberg, whose report is very interesting, urges earlier recourse to treatment in many cases, such as stiffness after fractures, but as the department is not open every day, the majority of patients have to be treated by ordinary massage in the hospital. Dr. Panton contributes An Investigation into Some Aspects of the Actions of Arsenic, showing the action of arsenious oxide on the blood and viscera, and on phagocytosis and chemiotaxis.

[9] *St. Bartholomew's Hospital Reports.* Edited by H. Morley Fletcher, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xliv. London: Smith, Elder, and Co. 1909. (Demy 8vo, pp. 281, with Statistical Tables of the Patients under Treatment in the Wards of St. Bartholomew's Hospital during 1907, pp. 190. Subscribers, 6s.; others, 8s. 6d.)

[10] *St. Thomas's Hospital Reports.* New series. Edited by Dr. H. G. Turney and Mr. W. H. Battle. Vol. xxxvi. London: J. and A. Churchill. 1909. (Demy 8vo, pp. 404. 8s. 6d.)

NOTES ON BOOKS.

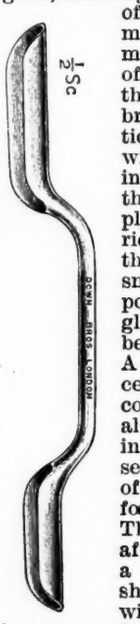
A SMALL book by Drs. BRENNING and OPPENHEIMER on the duties which fall to the lot of a ship's surgeon will be found useful by those who are disposed to spend part of their medical career in service at sea.[11] Amidst much detailed and didactic instruction on the duties of the medical officer on large liners, some useful hints are to be found here and there on his own comfort. The book is intended exclusively for German readers, and to those interested in the medical care of the passengers and crews of British ships affords very little fresh information beyond the indications that the German medical officer, as compared with those of other marines, has, as a rule, a better and more efficient equipment at his disposal, and, though at the cost of more stringent rule, has a more defined and a better recognized official position.

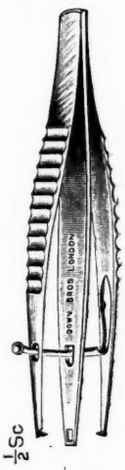
[11] *Der Schiffsartz. Leitfaden für Aerzte und Kandidaten der Medizin.* Von Dr. M. Brenning and Dr. E. H. Oppenheimer. Berlin: August Hirschwald. 1909. (Post 8vo, pp. 87; 6 illustrations. M. 1.60.)

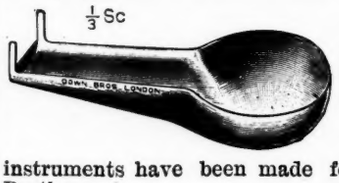
MEDICAL AND SURGICAL APPLIANCES.

Instruments for Gastro-enterostomy and Cholecystostomy.

MR. HAROLD UPCOTT, F.R.C.S., Honorary Assistant Surgeon, Hull Royal Infirmary, writes: During the performance of gastro-enterostomy or intestinal anastomosis, it frequently happens that the pouting mucous membrane of the already sutured half of the bowel is in the way of the needle while the anterior or return half of the mucous membrane is being sutured. To aid in the application of this suture I have had a protector made with ends of different sizes for stomach or intestine. It is applied after the posterior suture line is complete, and serves to depress the ridge of mucous membrane, at the same time affording a smooth surface over which the point of the needle readily glides. It is easily withdrawn before the suture is completed. A three-bladed coaptation forceps (originally designed for the coaptation of skin edges) has also proved useful for lifting up in apposition the edges to be sewn. The gall-stone bowl is of assistance in the cleanly performance of cholecystostomy. The apex of the gall bladder, after having been drawn through a hole in the centre of a sheet of thin rubber, is seized with two pairs of Poirier's forceps, which are allowed to hang over the projections on either side of the lip of the bowl. The gall bladder is opened between them, and its contents readily scooped into the bowl which rests upon the lower part of the abdominal incision. The instruments have been made for me by Messrs. Down Brothers.







Nova et Vetera.

A COUNTRY DOCTOR.

In an address delivered as Lord Rector of the University of Aberdeen in 1906, Sir Frederick Treves said he was disposed to believe that there have been more heroic men among practitioners of medicine than among those of any other calling. The heroism, he went on to say, may not be of a dramatic type, nor of a thrilling character. It is a heroism based upon self-sacrifice, which, accomplished under obscure conditions, has more than once signified that a man has laid down his life not only for a friend, but for the stranger beyond his gates. It is in the humbler walks of the profession that men who have thus borne themselves gallantly are to be found. "I should not," said Sir Frederick Treves, "seek for such men at a great medical festival held in some lordly hall where ornate toasts are proposed amid every evidence of ease and luxury. I would rather think that on the very night of such a festival, in some far-off part of the country, on a bleak moor, perhaps, a solitary man in a gig is pushing through the dark against wind and rain, to help another who is poorer than himself. Indeed, the true spirit of the profession of medicine is not to be illustrated by the brilliant surgeon who holds the operating theatre spell-bound, nor by the learned teacher who can grasp the attention of a crowded audience, but rather by the lonely figure of the man in the gig."

Readers of the *Surgeon's Daughter* will remember Scott's sympathetic picture of Gideon Gray, drawn, as Lockhart tells us, from life. To him Scott applies Johnson's beautiful lines on Levett:

> When fainting Nature call'd for aid,
> And hovering Death prepared the blow,
> His vigorous remedy display'd
> The power of Art without the show;
> In Misery's darkest caverns known,
> His useful care was ever nigh,
> Where hopeless anguish pour'd his groan,
> And lonely Want retired to die;
> No summons mock'd by cold delay,
> No petty gains disclaim'd by pride,
> The modest wants of every day
> The toil of every day supplied.

This exquisitely beautiful portrait, says Scott, well describes many village doctors, from whom Scotland reaps more benefit, and to whom she is perhaps more ungrateful, than any other class of men, excepting her schoolmasters.

Such a rural man of medicine is usually the inhabitant of some petty borough or village, which forms the central point of his practice. But, besides attending to such cases as the village may afford, he is day and night at the service of every one who may command his assistance within a circle of forty miles in diameter, untraversed by roads in many directions, and including moors, mountains, rivers, and lakes. For late and dangerous journeys through an inaccessible country for services of the most essential kind, rendered at the expense, or risk at least, of his own health and life, the Scottish village doctor receives at best a very moderate recompense, often one which is totally inadequate, and very frequently none whatsoever. He has none of the ample resources proper to the brothers of the profession in an English town. The burgesses of a Scottish borough are rendered, by their limited means of luxury, inaccessible to gout, surfeits, and all the comfortable chronic diseases which are attendant on wealth and indolence. Four years, or so, of abstemiousness enable them to stand an election dinner; and there is no hope of broken heads among a score or two of quiet electors who settle the business over a table. There the mothers of the state never make a point of pouring, in the course of every revolving year, a certain quantity of doctor's stuff through the bowels of their beloved children. Every old woman, from the Townhead to the Townfit, can prescribe a dose of salts, or spread a plaster; and it is only when a fever or a palsy renders matters serious, that the assistance of the doctor is invoked by his neighbours in the borough. But still the man of science cannot complain of inactivity or want of practice. If he does not find patients at his door, he seeks them through a wide circle. Like the ghostly lover of Burger's Leonora, he mounts at midnight, and traverses in darkness paths which to those less accustomed to them, seem formidable in daylight, through straits where the slightest aberration would plunge him into a morass, or throw him over a precipice, on to cabins which his horse might ride over without knowing they lay in his way, unless he happened to fall through the roofs. When he arrives at such a stately termination of his journey, where his services are required either to bring a wretch into the world, or prevent one from leaving it, the scene of misery is often such, that far from touching the hard earned shillings which are gratefully offered to him, he bestows his medicines as well as his attendance—for charity. I have heard the celebrated traveller Mungo Park, who had experienced both courses of life, rather give the preference to travelling as a discoverer in Africa, than to wandering by night and day in the wilds of his native land in the capacity of a country medical practitioner. He mentioned having once upon a time rode forty miles, sat up all night, and successfully assisted a woman under the primitive curse, for which his sole remuneration was a roasted potato and a draught of buttermilk. But his was not the heart which grudged the labour that relieved human misery. In short, there is no creature in Scotland that works harder and is more poorly requited than the country doctor, unless, perhaps, it may be his horse. Yet the horse is, and indeed must be, hardy, active, and indefatigable, in spite of a rough coat and indifferent condition; and so you will often find in his master, under an uncompromising and blunt exterior, professional skill and enthusiasm, intelligence, humanity, courage, and science.

Another literary portrait of the country doctor is Ian Maclaren's Weelum MacLure, whose fees "were pretty much what the folk chose to give him, and he collected them once a year at Kildrummie fair." As one of his patients said, he "hed a share in a' body's grief, and carried the heaviest wecht o' a' the Glen." Among his dying injunctions to his friend was the following:

> A' didna keep buiks, as ye ken, for a' aye hed a guid memory, so naebody 'ill be harried for money aifter ma deith, and ye 'ill hae nae accounts tae collect.
>
> But the fouk are honest in Drumtochty, and they 'ill be offerin' ye siller, an' a'll gie ye ma mind aboot it. Gin it be a puir body, tell her tae keep it and get a bit plaidie wi' the money and she 'ill maybe think o' her auld doctor at a time.

Homely and rugged as he was, he went about doing good. Ian Maclaren says he was often asked if there was ever any doctor so self-forgetful and so utterly Christian as Weelum MacLure. To which he was proud to reply on his conscience, "Not one man, but many in Scotland and in the South Country. I will dare prophesy also across the sea." It was his fortune to know four country doctors, each of whom might have sat for the portrait of his hero.

We are happy to be able to give a sketch of a country doctor who to all the active benevolence of Weelum MacLure added an intellectual power, a highly cultivated mind, and a wealth of exact and varied knowledge of which no trace appears in the picture of the rough old doctor of Drumtochty. Strolling about last summer in the beautiful burying ground attached to the parish church of Mortlach, in Banffshire, which tradition carries back to the time of the Culdees, the writer's eye was caught by a monument standing out from among the other stones marking the resting places of the forefathers of the village. In form an obelisk with an ornamental base on a granite pedestal, it had about it a simple dignity that at once arrested attention. Following the injunction of Gray in his *Elegy*, the writer approached and read; and certainly the inscription graved on the stone was well worth reading. It runs as follows:

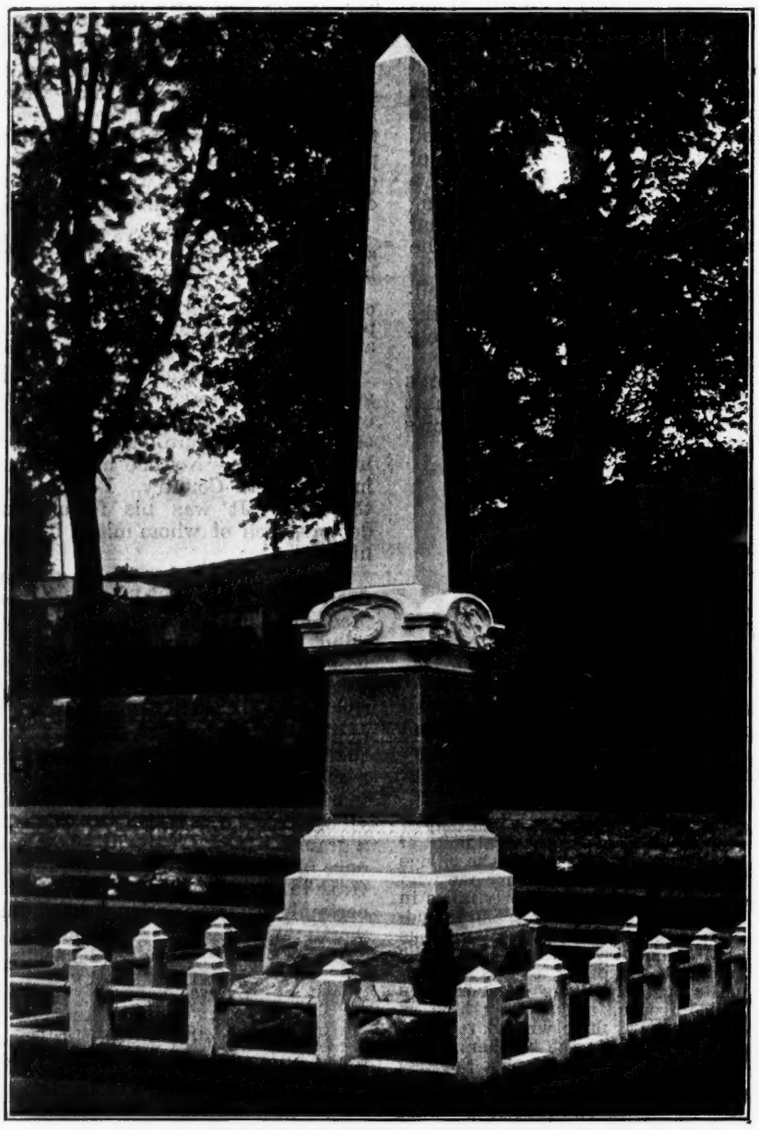
> JAMES A. INNES, M.D.
> Beloved and deeply revered in life now
> deeply mourned lies here,
> Born at Tenreach, Mortlach, 6 April, 1838.
> Died at Dufftown, 14 February, 1905.
>
> "Blessed is he that considereth the Poor."
>
> ---
>
> A Physician of marvellous skill and ability,
> leading a life of self-denying simplicity.
> He devoted his whole time to the relief of
> suffering humanity.
>
> ---
>
> For 40 years his valuable services
> were very highly appreciated
> and in grateful remembrance of his
> assiduous attention
> This monument is erected to his memory
> by 1178 subscribers
> 1905.

A photograph of the monument is reproduced on the next page.

The fact that a country doctor should be commemorated in so touching a fashion led to inquiries which revealed the story of a very remarkable man, of whom our

profession has good reason to be proud. A short account of his life will, we are sure, be interesting to many of our readers. That no obituary notice of such a man appeared in the BRITISH MEDICAL JOURNAL at the time of his death is only a proof that he spent his life in the spirit of the maxim, *Bene vixit qui bene latuit.* We think it our duty now to repair the omission. We have to acknowledge the kindness of several correspondents, notably Mr. Charles Innes (brother of Dr. Innes), Miss Macdonald, the Rev. George P. Shaw, and Dr. John Grant of Dufftown, Mr. James Ingram, editor of the *Dufftown News and Speyside Advertiser*, Mr. John Law, M.A., of Maud, and Mr. Edward Beaton of Hampstead, who have supplied us with information.

James Alexander Innes was the son of a farmer, and was born in the parish of Mortlach in 1838. He was educated at the parish school, then under the rod of John Macpherson, a *plagosus Orbilius* of local celebrity, who had some years before had the late Field-Marshal Sir Donald Stewart and Lord Mount-Stephen among his pupils. Having won a bursary at the University of Aberdeen, Innes entered the Arts Faculty and later began the study of medicine. He finished his course at Edinburgh, where he had the good fortune to have among his masters Syme and Warburton Begbie, who is said to have described him as the best student that ever passed through his hands.



Monument to Dr. Innes, Dufftown.

Innes took his degree at Edinburgh with honours. He might with confidence have chosen a sphere that would have made his light be seen of all men, but he preferred that it should be the little candle shining like a good deed in a naughty world, and for our part we think he chose the better part when he decided to make his native place his field of action. He settled in Dufftown in 1864, and there among his own people he worked for forty years without ever taking a holiday. He gave himself wholly to his professional work, seeing patients at his own house at any hour they might choose to come, and answering every call whatever the weather or the difficulties of the road. He recognized no difference of rank or fortune, giving the poor cottager the same attention that he bestowed on the wealthy. Although he soon won a reputation which extended far beyond the boundaries of his own district, from first to last his work was its own reward. His fees were smaller even than those of Weelum MacLure. Often when asked for an account, he would look at his books and say there was nothing due. A lady who knew him well, and to whom we are indebted for much of the information embodied in this article, refers to the case of a gentleman who came to see Dr. Innes from a place about 120 miles distant. The doctor examined him, and after talking with him for two hours charged 1s. for the interview. Another time an English gentleman and his wife who were holiday-making in the neighbourhood called to consult him. As they left the doctor's house, the gentleman said, "When I asked about his fee, I thought he said a shilling, but that is impossible. I will write to him."

A few instances of his beneficence will paint the man. He had prescribed for the daughter of a poor woman, but after a day or two, not being satisfied with the results, he asked if the girl was getting the medicines ordered. Her mother had to confess that she was not, as she was too poor to pay for them. Dr. Innes thereupon handed her the money. Once, when he called on an old woman who lived in a little cottage in the country, she told him to go to the top shelf of her "press," and there in a cup he would find some money. "Pay yoursel'," said she, "but lave fat will pay ma medicine." When the cup was next looked at it was found the doctor had placed in it a sovereign. At a place some twenty miles distant a woman was suffering from a serious illness. Her own doctor after a time called Dr. Innes in consultation. After the woman's recovery she paid her own doctor, and then came to Dr. Innes, asking what was the amount of his bill, as she had sold her cow to pay the first account, and she had a sheep which she could sell to help the payment of the second. Dr. Innes told her that it was to her own doctor that he had to state the amount of his fee, but he asked her to come back after a certain time to him. Meantime, Dr. Innes was asked to send his account to the other medical practitioner, and he asked for the exact amount the poor woman had been charged. When she again presented herself to Dr. Innes he handed her the whole sum, and told her to go and buy another cow.

The doctor had been in attendance on the family of a crofter in the district for many months. One day the man came and said he would like to pay him something, as he was ashamed of his coming to his house so long. On the doctor's asking how much he had, the man said he had £3, and was going to give him £2 and keep £1. Dr. Innes said, "Never mind until you have more." Some time later the same man had been to market and sold an ox. Afterwards he presented himself at the doctor's house, saying, "I am fit for ye noo, doctor. I hiv plenty siller the day." On the doctor's asking what he proposed to do,

the man said "To give you £2 and keep £1." The answer was "Give me £1, and keep £2 for yourself."

A young journeyman tradesman who was very often laid aside from work through illness needed much of the doctor's skill and care. During convalescence, after a long illness, he went to the doctor and said he was going to give him £1 in part payment, and when he was able to earn more he would come back. Dr. Innes replied that he thought the £1 he proposed giving him would keep him a week at the seaside. "Go and tell Mr. C." (his employer) "that I said you would be better of a short visit to the seaside. Never mind, I'll go and speak to Mr. C. myself," and he did.

On one occasion when he was attending a little servant maid who was lying dangerously ill in the Stephen Hospital, General Sir ——'s carriage arrived to take him to a neighbouring country house to visit the master of the house who was ill, but Dr. Innes refused to go. He preferred to remain and do what he could to soothe the last agony of the poor friendless girl.

Dr. Innes never sent out an account in his life. If patients did not offer a fee, he never asked for one. When he had occasion to ask the help of a brother practitioner he seemed to have an understanding with him about the fee. In arranging a matter of this kind he once said to our informant, "I generally get Dr. —— put off with a guinea." In a case on which he operated successfully for cancer, his charge was nothing for himself and a guinea for the colleague who assisted him. It was not only in the case of individuals that Dr. Innes showed this indifference to fees. For some time he was medical officer to the local lodge of Oddfellows, a very prosperous society. On one occasion his charge for attendance for a whole year was 17s. 6d! Such was the gratitude of the people among whom he worked that in 1882 they collected a sum of £339 16s. 6d. with the intention of presenting it to him as a testimonial. He declined to accept it, however, and insisted on the money being returned to the subscribers, saying that many of them wanted it more than he did.

It should be stated that Dr. Innes had a small private property; moreover, he was unmarried. In such circumstances alone is altruism like his possible. In the matter of fees every man owes a duty to his profession as well as to himself; and in this respect the example of Dr. Innes is, as the biographers of saints are often compelled to say, one to be admired rather than imitated.

Of Dr. Innes, as of John Arbuthnot, it might well have been said that he knew his art but not his trade. He was a man of sound clinical judgement, and a skilful surgeon, operating with good results before the days when trained assistance was available. He is said to have performed the first successful abdominal operation in the district. He took a great interest in the building of the well-equipped cottage hospital which Dufftown owes to the bounty of Lord Mount-Stephen, and took a large part in the planning of the arrangements. There he found a congenial field of work. After a time the directors proposed to present him with a cheque for £50 in token of their appreciation of his services; he would accept nothing for himself, but on being pressed drew up a list of surgical instruments for use in the hospital.

Dr. Innes took no part in public affairs; he was never present at a public function, nor did he ever use his right to vote at any municipal, parliamentary, or other election. He never accepted an invitation to a dinner party, but he was no recluse, and in his own home received any friend who called with the utmost cordiality, and to those interested in his conversation he was liberal in giving of the treasures of his knowledge. Dr. Innes was an omnivorous reader, and was always eager for information on subjects unfamiliar to him. His library contained all the best modern works on the various branches of medicine, and not a few of the ancient writers. He kept himself well abreast of progress in medical science by regularly reading the BRITISH MEDICAL JOURNAL and other professional periodicals. In literature his taste was truly catholic: Aristotle, St. Thomas Aquinas, Spinoza, Renan, John Henry Newman Carlyle, Homer, Herbert Spencer, Herodotus, Thucydides, Shakespeare, Milton, Walter Scott, Byron, Swinburne, Keats, and Tennyson rubbing elbows, so to speak, on his shelves. Burns he knew almost by heart. He did not disdain fiction, even fairy tales, but never read a novel through. But his favourite study was mathematics, in which he had been well grounded in his youth, and to which he continued throughout his life to give much attention. He was considered one of the best mathematicians in the North. He was a great admirer of Newton, all whose works he possessed in different editions. He had also a large collection of the best works on mathematical subjects, English and foreign.

Dr. Innes was a man of fine physique, with a head resembling that of Tennyson. He led a simple life, hating shams and display—a true philosopher of the Teufelsdröckh school. In his later years he did not go to church, the reason assigned for this being characteristic of the man. In the course of a discussion on the subject, an old acquaintance said:

> When he first came to Dufftown he geid to the Kirk ivery Sunday, and sat in his father's set in the breist o' the laft (front of the gallery). His father was an elder, and gathered the bawbees (took up the collection). But he stoppit gaeing because he wis taen oot ivery Sunday and disturbit the fowk.

An old Roman Catholic lady, who occasionally presented the doctor with a pair of knitted gloves, once in sending the gift expressed the wish that he would attend the "Chapel" (as Roman Catholic places of worship are called in Scotland). When the message was delivered Dr. Innes said, "If it would be any satisfaction to Miss ——, tell her that I go nowhere else!"

He used to say that a doctor ought never to retire altogether. "As long as he can sit on his chair, he should give the benefit of his life's experience to others." He continued to work till increasing weakness made it impossible for him to go out, and he passed away worn out but having done his duty faithfully to the end. The inscription on the monument to his memory, which has been quoted, shows the reverence and affection in which he was held by those among whom he worked. It is needless to add anything to such an expression of feeling.

> Kings for such a tomb would wish to die.

THE VALUE OF DIFFERENT SUBSTANCES AS DISINFECTANTS.

THE quantity of disinfectants used for various purposes in this and other countries is already very large and appears to be still increasing; and a proportionately greater increase is certainly taking place in the number and variety of substances and mixtures advertised and sold for use for this purpose. Many recent additions to the antiseptics and disinfectants available undoubtedly embody improvements of value, and represent the application of the best and fullest knowledge yet obtained on the subject; but, as is usual in such a case, there are others which represent little but the employment of the terminology of science to further the sale of articles of little real value.

From the point of view of the public health, the real efficiency and constancy of strength of disinfectants is scarcely, if at all, less important than uniformity in the strength of medicines or the purity of foods. The increasing accuracy of knowledge with regard to the activity of disinfectants has not yet led to very wide application of the principle of standardization, and has certainly shown that many difficulties lie in the way. It can hardly be doubted, however, that the large amount of valuable work that is being done in this direction will eventually render practicable a greater amount of standardization than at present; and before long it may be possible to give the purchaser of disinfectants some sort of legal protection against having articles of little value foisted upon him, such as is now given, rather imperfectly, in the case of food and drugs. Progress in this direction can be, and should be, stimulated by an intelligent demand on the part of the consumer that the maximum possible degree of accuracy should be employed in the description of disinfectants offered for his use, and by subjecting them whenever possible to the most rigorous testing. Although the large consumers of disinfectants are the general public, it is to the medical profession that they look for guidance in the matter; and in the numerous class of surgical antiseptics it is medical men themselves who are the consumers.

A report issued recently from the Hygiene Institute of

the University of Giessen by Dr. Kurt Laubenheimer[1] contains a useful summary of much of the work on the testing of disinfectants done on the Continent in recent years, as well as a record of a series of experiments carried out by the author which led to some not unimportant results. Some of the work which has met with the widest application in this country is not alluded to, and may usefully be touched on here.

The preponderating volume of expert opinion is in agreement in insisting on the necessity for bacteriological testing, though this by no means implies that the chemical composition of disinfectants may be ignored; but agreement does not go very much further than this. A standard test under fixed conditions was first proposed, in 1903, by Rideal and Walker, and the method of working laid down by them has come into fairly general employment, largely because of the official recognition that has been given to the test by certain public departments; but the authors of the test would admit as readily as any one that it cannot be regarded as final, useful as it has proved provisionally. It has been shown that different workers, equally skilful and experienced, not infrequently obtain very different results for the same disinfectants by this method; and a good deal of criticism has been levelled against it on the ground that the conditions of the test differ so much from those prevailing in the actual employment of disinfectants, that the Rideal-Walker coefficient of a substance may give little or no information as to its real relative value as a disinfectant.

Most of the difficulties of the subject arise from the fact that in dealing with bacteria, as with all forms of living material, the number of conditions that are outside the control of the investigator is far greater than in purely chemical work, however complex; and the conclusions drawn from a given series of tests are consequently only capable of much more restricted application. It is necessary, therefore, to define as precisely as possible what effect on the living organisms it is desired to produce; for instance, in the present case, whether a disinfectant is to be tested with regard to its power of inhibiting their growth, or to its power of actually killing them, as the one property does not stand in any constant ratio to the other. It has been laid down by Krönig and Paul that the power possessed by a substance of inhibiting bacterial growth depends directly on the concentration of the solution, other conditions remaining the same; while its power of actually destroying bacteria is a function of the time during which it acts. Many of the results described by Dr. Laubenheimer illustrate the fact that two disinfectants showing a given ratio between their respective powers of inhibiting growth under given conditions may show a totally different ratio between their powers when their bactericidal actions are compared. Thus, working with *Staphylococcus pyogenes aureus*, a 1 per cent. solution of terpineol only destroyed the bacteria when allowed to act for five hours, but a 1 in 15,000 solution was sufficient to completely arrest growth; with o-xylenol and the same culture of staphylococcus, a 1 per cent. solution killed in thirty seconds, but a strength of 1 in 7,000 was necessary to prevent growth. Different organisms, again, are very differently affected; the growth of staphylococcus was prevented by a 1 in 5,000 solution of thymol; for *Bacillus typhosus*, 1 of thymol in 18,000 sufficed; and for *Bacillus diphtheriae* 1 in 30,000.

For certain purposes the power possessed by a substance of preventing the growth of organisms, that is, its antiseptic as distinguished from its germicidal action, is of importance; but in most cases it is the true disinfecting power, or power of killing organisms, which it is desired to measure. Some indication of the activity of a substance in this respect is afforded by a determination of the time required for a given dilution, for example, 1 per cent., to kill organisms of a stated kind under fixed conditions; in order, however, to obtain useful figures, some standard of comparison is necessary, and pure carbolic acid (phenol) is usually taken for this purpose. Since the resisting power of different strains of the same organism may show considerable variations, a control test should always be made with carbolic acid on the same culture of organisms as is employed in testing the substance under investigation; and in this country, instead of comparing the periods of time required by solutions of the substance and of carbolic acid respectively to kill the organism, the plan now commonly adopted is to find by trials the strength of the solution of the substance which will just kill the organisms in the same time and under exactly the same conditions as a 1 per cent. solution of carbolic acid, and the reciprocal of the number expressing the percentage strength of this solution is then called the carbolic acid coefficient of the substance in question. If, for example, a $\frac{1}{4}$ per cent. solution is found to kill the organism in the same time as 1 per cent. carbolic acid, the coefficient is 4, and so on. In the Rideal-Walker test the exact conditions and method of working are laid down, and it is becoming usual now to include in the description of a disinfectant a statement of its carbolic acid coefficient found in this manner.

This is of course an advance on merely employing such vague terms as "strong," "very powerful," and so on; but it cannot be too clearly pointed out that the information given by the determination of the carbolic acid coefficient is strictly limited, and it would be entirely fallacious to suppose that a substance with a carbolic acid coefficient of, say, 4, can be described without reservation as "four times as strong a disinfectant as carbolic acid," or that disinfectants arranged in order of their carbolic acid coefficients are thereby arranged in order of their value. In the first place, the carbolic acid coefficient is far from being determinable with the accuracy and certainty of a chemical test; experience has shown that different workers, accustomed to the test, will obtain very different coefficients for the same substance. In the second place, the coefficient found only shows the relative efficiency of the disinfectant under the conditions of the test, and the conditions under which it is required to act in practice may cause it to show a very different relative efficiency. Thus it has been shown by several bacteriologists that in the presence of organic matter of various kinds, as faeces, blood, etc., the activity of some substances is reduced in far greater degree than that of others; as an example of this, oxidizing substances such as permanganates show a very high carbolic acid coefficient when tested in the ordinary way, but in presence of any considerable amount of organic matter the oxidizing power of the substance is largely exerted upon the latter, and its germicidal power thereby reduced. But it is not only oxidizers which are affected in this way; a disinfectant containing cresols and coal-tar oils which is several times as powerful as carbolic by the Rideal-Walker test, may not only show an absolutely lower efficiency in presence of faeces, but may be even considerably less effective than carbolic acid when both are tested under these conditions. Other facts which limit the significance of the carbolic acid coefficient are that it is not always the same for different organisms; *B. typhosus* is usually employed for the test, but the disinfectant will in practice be required to act on many others; in particular, it is found that the relative powers of two substances for killing bacteria are often quite different from their relative powers of destroying the vitality of spores. Corrosive sublimate is very effective on some of the most resistant spores, and this fact has helped materially in bringing it into the high favour with which it is regarded, though it is by no means proportionately more effectual than other subsances on some bacilli.

In Rideal and Walker's test the carbolic acid coefficient is determined as follows: Equal volumes of various dilutions of the substance under examination and of 1 per cent. solution of carbolic acid receive additions of equal small quantities of a culture of typhoid bacilli in broth; after definite intervals for the action of the substance on the bacteria fresh tubes of broth are inoculated from the different test liquids, and these are then incubated in order that growth may take place in those cases in which the bacteria have not been killed. If necessary, the test is repeated with other dilutions of the substance until that dilution is found which just kills the bacteria in the same time as the 1 per cent. carbolic acid. A weak point in the method which is not altogether negligible is that in the inoculation of fresh tubes of broth from the disinfecting liquids to which bacteria have been added, small quantities of the disinfectant are transferred to the culture

[1] *Phenol und seine Derivate als Desinfektionsmittel.* Vorgelegt von Dr. Kurt Laubenheimer. I. Assistenten am Hygienischen Institut in Giessen. Berlin and Vienna: Urban and Schwarzenberg. 1909. (Sup. roy. 8vo, pp. 162. M. 3 60.)

tubes; and it may be the case, therefore, if no growth occurs, that this is due to the inhibiting action of this small quantity of disinfectant on bacteria, weakened in vitality by their contact with the disinfectant solution, and not to all the bacteria having been actually killed. This power of inhibition without killing is much greater for some substances than for others; and although it is of much less consequence as a disturbing factor in this method than in the thread method of Koch, it must not be ignored altogether.

A method of testing which is in a good deal of favour on the Continent is the garnet method of Paul and Krönig. This is essentially the same as the method followed by Dr. Laubenheimer, *Staphylococcus pyogenes aureus* being the organism employed. Well cleaned and sterilized garnets of uniform size are treated with a vigorous liquid culture of the bacteria and then drained and thoroughly dried by confinement over a desiccating agent; after drying, a considerable number of the organisms lose their vitality rather quickly when kept at the ordinary temperature, but it was found by a careful series of tests that after four days the number capable of growth did not alter in any serious degree up to about the tenth day, and garnets were accordingly always used not less than four days nor more than ten days after treatment with the bacteria. In making the tests a number of garnets were placed in the disinfectant solution and left there for given intervals of time; they were then taken out and washed free from all traces of the disinfectant, then shaken up in sterile water to detach the bacteria, and plate-cultures made and incubated; after growth the colonies were counted. Various precautions not here mentioned were observed, and the adequacy of these was demonstrated by a variety of control experiments. A blank test was made in each case, sterile distilled water taking the place of the disinfectant solution; the number of colonies obtained from the blank test was usually from 30,000 to 150,000. Each test with a disinfectant was made in triplicate.

Dr. Laubenheimer's investigation was, with a few exceptions, confined to substances of phenolic nature, or mixtures in which the chief active ingredient was of phenolic nature. Full particulars are given of the investigation of about forty bodies of this class; a few of the more important results obtained were as follows:

Substance Tested.	Strength of Solution.	Time of Contact Required to Kill *S. pyogenes aureus*.
	Per Cent.	
Pure carbolic acid	1 0	90 minutes.
Lysol	2 0	5 ,,
Liquor cresoli saponatus (containing 50 per cent. cresol)	2.0	4 ,,
Corrosive sublimate	0.1	30 ,,
Eucalyptol	1.0	6 hours.
Menthol	1.0	6 ,,
Beta-naphthol...	1.0	15 minutes.
Thymol	1.0	3 ,,
Propyl-phenol...	1.0	3 ,,
O-xylenol	1.0	30 seconds.
M-xylenol	1.0	30 ,,
P-xylenol	1.0	9 minutes.
Chlor-o-cresol	1 0	2 ,,
Chlor-m-cresol	1.0	30 seconds.
Chlor-m-cresol	0.5	1 minute.
Chlor-m-cresol	0.25	1 ,,
Chlor-m-cresol	0.1	10 minutes.

It has long been known that the cresols (or methyl-phenols), the next higher homologues of phenol, possess a bactericidal power much greater than that of phenol itself, although they are less toxic; they are, however, but very slightly soluble in water, and are therefore generally prepared for use in combination with a soap, and such a preparation, when mixed with water in the proportions required for use, makes a clear solution. It is found, however, that the oily hydrocarbons which are largely mixed with cresol when it is obtained from coal tar themselves possess considerable bactericidal power, and the crude substance is therefore generally employed in making disinfectants; a soapy preparation of this material gives a milky emulsion on dilution with water, and such an emulsion is an efficient germicide. Such preparations usually have a carbolic acid coefficient of about 4. Ascending the homologous series a step further, the next compound is dimethyl-phenol; several isomers of this constitution exist, known as xylenols, three of which are mentioned in the above list. These again are found to be much more powerful than cresol, and they form the most active ingredients in various disinfectants on the market which show a carbolic acid coefficient of about 14 to 18. *Pari passu* with the increase of bactericidal power as the series of phenols is ascended, goes a diminution of toxicity to higher forms of life; the cresols are less poisonous than phenol, and the xylenols are much less poisonous again.

It was found by Dr. Laubenheimer that some of the chlorine derivatives of the cresols were even more powerfully bactericidal than the xylenols, especially in dilute solutions. Thus, comparing the best of each, 1 per cent. of m-xylenol and of chlor-m-cresol alike killed staphylococcus in 30 seconds; 0.5 per cent. solution of m-xylenol required 2 minutes, and 0 25 per cent. required 25 minutes, whereas 0.5 per cent. chlor-m-cresol required one minute and 0.25 per cent. also only one minute; 0.1 per cent. required ten minutes, while corrosive sublimate of the same strength required thirty minutes. The toxicity of the two substances was compared by experiments on guinea-pigs; on these animals the minimum lethal dose of the m-xylenol was found to be 1.75 gram per kilo of body-weight, and of the chlor-m-cresol 4.0 grams, the latter being thus less than half as toxic as the former, and, indeed, practically non-poisonous. Comparisons were also made of the irritant action of the two when applied to the eye of a rabbit; the effect of m-xylenol was small, but that of chlor-m-cresol much less; when a 0.25 per cent. solution of the latter was employed, no irritant effect could be observed. The power of chlor-m-cresol to prevent the growth of staphylococcus, without killing it, was tested. In a solution of 1 in 22,000, no growth took place, even in eight days; with 1 in 24,000, growth occurred on the first day, showing that the former solution was just strong enough to prevent it.

Various trials were then made of the efficiency of this chlor-cresol in sterilizing the skin when applied after the thorough washing that would be employed in actual practice. Full details are given of the various precautions taken to make the test satisfactory. It is stated that treatment of the clean hands with a 1 per cent. alcoholic solution of chlor-m-cresol produced a condition of complete sterility. Finally, chlor-m-cresol and m-xylenol were tested in regard to their power of sterilizing typical tuberculous sputum when merely added to it without thoroughly mixing. Guinea-pigs were afterwards subjected to injections of the liquids, and, after intervals of five and eight weeks, were killed and examined for tuberculosis. In these tests 5 per cent. solution of each was used, and m-xylenol showed itself the better, three hours proving sufficient for complete disinfection, while eight hours' contact was necessary in the case of chlor-m-cresol; 5 per cent. solution of lysol, tested in the same way, did not disinfect the sputum in twenty-four hours, and 10 per cent. solution of lysol did not disinfect in twelve but did in twenty-four hours. It is evident that the chlor-cresols may prove most useful additions to available bactericides.

One of the phenolic substances mentioned above, which has long been in some favour as an antiseptic, is thymol, and it is noteworthy that it showed itself more efficient than beta-naphthol, and even than cresol, under the conditions of the test. Even in weaker solution than 1 per cent. its efficiency was very high; the small extent to which the concentration affected the time taken to kill the bacteria well illustrates the impossibility of deducing the effect of one dilution from that of another; thus, a 5 per cent. solution of thymol killed staphylococcus in two minutes, a 1 per cent. solution in three minutes, and a 0 5 per cent solution in five minutes.

The nature and quantity of the soap used to render these higher phenols and derivatives miscible with water was found in some cases to have a considerable effect on the germicidal power of the solution. A soap prepared with dioxystearic acid possessed no germicidal power itself, but gave much better results when used as an adjunct to the higher phenols than ordinary pure soft soap, although the latter, when tested alone, showed a very appreciable germicidal power; soaps made with ricinoleic acid and sulphoricinoleic acid had very low germicidal power, but also proved to be better media than soft soap. In some cases wide variations in the amount of soap employed had no influence on the results, but in most cases an optimum proportion between soap and phenol was found, and any considerable variation from this caused impaired efficiency.

The general nature of the results arrived at by Dr. Laubenheimer is in agreement with ordinary experience in showing that disinfectants prepared with some of the many phenols or phenol-derivatives have many important advantages over some of the substances which have at various times been in great favour.

We have alluded above to the behaviour of oxidizing agents in the presence of excess of organic matter; it has been asserted that such oxidizers as permanganates will attack the highly complex molecules of the bacterial protoplasm in preference to relatively more stable substances, and there is, no doubt, some truth in the statement; but direct tests have shown that the bactericidal efficiency is lowered in an important degree by the presence of faecal matter and other organic substances. A somewhat similar disadvantage attaches to the use of mercury perchloride, the efficiency of which is greatly reduced by the presence of albuminous substances; such reduction is far less in the case of phenols, and in some cases practically negligible. Thus, a 1 per cent. solution of m-xylenol, in which the medium (apart from the small quantity of soap) was water only, destroyed staphylococcus in thirty seconds, and a solution of the same strength, but in which 50 per cent. of blood serum was present, destroyed them in one minute; 2 per cent. lysol solution destroyed the organisms in five minutes; and a 2 per cent. lysol, containing 50 per cent. of blood serum, required seven minutes.

Extensive experience alone will avail to show which of the various methods employed, or to be employed, for the bacteriological testing of disinfectants will give the greatest amount of information and of the most useful kind. For the present, while bacteriological testing is of great importance, and should always be insisted on, it would be a most serious mistake to accept a carbolic acid coefficient as giving all the information about the efficiency of a disinfectant that it is necessary to have. In judging substances of this class, and deciding in favour of one rather than another, due consideration must be given to the particular purpose for which it is to be employed, whether it is to be used in presence of much or little organic matter and the average nature of the latter, and many other facts. But full recognition of the limitations of the information given by a carbolic acid coefficient should not lead to its being undervalued; as much accurate information as can be given about any substance put forward as a disinfectant should be insisted on. In most cases it is desirable to know the carbolic acid coefficient of a disinfectant according to the Rideal-Walker method, and also the same coefficient when tested in presence of organic matter, which may be faeces or blood, etc.; and, finally, full account should be taken of the chemical nature of all disinfectants.

The Royal Bucks Hospital at Aylesbury has recently been structurally overhauled, and a new wing and operating theatre and other improvements introduced. In connexion with the alterations Mr. George Carrington, chairman of the hospital, who has been chiefly instrumental in securing their being carried out, had the advantage of the counsel of Sir Frederick Treves, who recently made a thorough inspection of the institution, and in a speech before leaving said that the new wing and its adjuncts represented the very last word in hospital construction. A hospital thus perfectly equipped was of advantage both to the rich and poor of the district, for it kept up the standard of medical and surgical science in its locality.

THE MEDICAL TREATMENT OF SCHOOL CHILDREN.

The acting honorary medical staff of the Derbyshire Royal Infirmary and the Derbyshire Hospital for Sick Children recently presented to the boards of management of the respective hospitals a report upon the medical and surgical treatment of children attending the elementary schools, and found defective by the school inspectors. The report takes the form of a discussion of certain questions.

1. *Should the school authorities, in consideration of payments to the hospitals, be able to claim treatment at the institutions for any children who may be sent thereto?*

After a reference to the paragraph 7 (*g*) in Circular 596 of the Board of Education,[1] the report points out that such proposals raises for the consideration of boards of management serious questions of principle which are dealt with as follows:

"At present our hospitals are charities, supported by the contributions of the benevolent, and managed by boards elected by the contributors. If hospitals accept contributions from public funds in consideration of undertaking the treatment of certain patients, then, as regards the treatment of those patients, they cease to be charitable institutions. They become rate-aided institutions, and the ratepayers, as such, will have a right to a voice in the management.

"The ground on which the services of the honorary medical staff of a hospital are given to it is that it is a charity supported by voluntary contributions of benevolent members of the community. If this charitable basis is abolished, the claim upon the staff to act as honorary officers ceases.

"The importance of the questions thus raised extends beyond the immediate issue. If the boards of management now permit the insidious introduction of arrangements whereby patients, in respect of which hospitals receive payment from public funds, are to be treated gratuitously by the honorary staff, a very serious form of competition with private practitioners will be instituted under public sanction, and a precedent will be created for ever-increasing demands by the community upon gratuitous work of medical practitioners.

"If, in recognition of the considerations above stated, the principle be accepted that payment is to be made to members of the staff for treating at the hospitals children in respect of whose treatment payment from public funds is received, it follows that those members of the staff will cease to be honorary and will become paid servants. As the work will be paid for out of public funds, all members of the medical profession alike ought to be eligible for the appointments to treat these children, and not only those who are members of hospital staffs.

"If the hospitals consent to undertake work paid for out of public funds, and pay their staff, certain important grounds of appeal to the benevolent for funds—that is, the purely charitable basis of the institution and the entirely gratuitous services of the medical staff—will no longer exist, and it is probable that contributions will seriously diminish.

"If the hospitals undertake this work the various departments will be filled with cases, many of a trivial character, and the real work for which the hospitals exist—that is, treatment of the more serious forms of accident and disease—will be interfered with.

"Our answer to question No. 1 is therefore in the negative."

2. *Is it advisable that the hospital boards should let part of their premises to the school authorities for the purpose of the treatment of children found defective by the school inspectors, the school authorities making their own arrangements with medical practitioners to do the work? In other words, is it advisable to allow "school clinics" to be established on hospital premises?*

"This question arises out of a communication from one of the school authorities addressed to the Board of the Royal Infirmary.

"If facilities in this direction be given to one school authority and for one class of disease, it will be wellnigh

[1] Supplement to the British Medical Journal, 1908, vol. ii, p. 193

impossible to refuse like facilities to other school authorities and for other classes of disease.

"If the proposal be accepted, there will be two classes of patients attending at the hospitals. One class the patients of the charity, and the other class the patients of the school authorities.

"If the proposal be accepted, and the hospital boards make a condition of letting, that only members of their own staffs shall be eligible for appointment to do the work, it will be unfair to other medical practitioners. Medical appointments paid for out of public funds ought to be open to all medical practitioners alike. If the hospital boards make no such condition, the result will then be that medical men over whom the boards have no manner of control will be doing work on hospital premises.

"Our answer to question No. 2 is therefore in the negative."

3. *Should children, found defective by the school inspectors, and coming to the hospitals with recommendations, be refused treatment?*

"We do not think it possible, at any rate at present, to distinguish between children who have been found defective by the school inspectors and those who have been found defective by their parents.

"If the subscribers to the charities desire that certain children shall be treated by the charities, we do not see why they should be excluded, provided they are proper cases.

"The number of children coming to the hospitals in Derby is automatically limited by the number of recommendations available. If it is found that the out-patient departments become overcrowded, it is always open to the boards of management to limit the number that may be seen in any one day.

"Our answer to question No. 3 is therefore in the negative."

LITERARY NOTES.

DR. CAZALIS, whose recent death at the age of 69 has already been mentioned in the JOURNAL, practised as a physician at Aix-les-Bains, but was best known as a poet. He wrote under the pseudonym, "Jean Lahor." He belonged to the "Parnassian" school of poets, and, in conjunction with Sully-Prudhomme, José Maria de Heredia, and François Coppée, he founded the *Parnasse contemporain*. His fame as a poet rests on three volumes of verse, entitled *Mélancolie* (1868), *Le livre du néant* (1872), and *L'Illusion* (1875). He was also the author of a book entitled *William Morris et le mouvement nouveau de l'art décoratif*. In his later years Dr. Cazalis's efforts as a writer were directed mainly to the popularization of notions of hygiene and social prophylaxis. His last work was *Le Bréviaire d'un Panthéiste*, a collection of thoughts on philosophy and religion culled from all sources. Beginning as a pessimist, Dr. Cazalis reached a more comforting creed which led him to preach the duty of altruism. He was one of the promoters of the Society of Popular Hygiene and Art.

The *Annals of Psychical Science*, a quarterly review devoted to critical and experimental research, founded in January, 1905, has changed hands. Mr. Dudley Wright, the present assistant editor, has succeeded Mrs. Laura I. Finch as editor, the last named joining the Editorial Board, which already includes among its members Sir William Crookes, M. Camille Flammarion, Professor Lombroso, Professor Charles Richet, and Colonel Albert de Rochas. Premises have been secured in the West End of London for the proposed Psychical Research Club, which will shortly be opened. Mr. Wynton Hope has been appointed secretary, and all communications respecting the club should for the present be addressed to him, care of the *Annals of Psychical Science*, 110, St. Martin's Lane, London, W.C.

In *My Journal* for July Dr. Dabbs gives an interesting sketch of "Dicky" Partridge, the well-known professor of anatomy at King's College, and surgeon to the hospital. He describes him as old but disdaining age, quite fair, with short, sparse, blonde hair brushed across his skull, faultlessly dressed, with trousers that were a dream of accuracy. He was a short man, stooping a very little, thin, lithe, active, with a smile of subdued amusement, a wonderfully pliable mouth, and eyes that danced with humour. Dr. Dabbs continues:

> The most difficult points of anatomical relationship he flashed upon us and fixed for ever in our memories by some anecdote or allusive parallel, more fit very often for the dark room than the light. He had told his anecdotes so often that he had learnt to dwell on each voice inflection with a perfectly balanced proportion as to effect, and he was the most marvellous draughtsman with coloured chalks on a blackboard that I ever saw; his illustrations of the hard facts of anatomy were such a faultless contect of their anecdotal suggestiveness, that while the roars of laughter at his words were rising into a whirlwind of appreciative hilarity, the studied accuracy of his drawings checked the laugh at its top note, till it died away in sheer wonderment at the growing work of the artist with his back to us. I rather think that the ecclesiastical side of the King's staff was inclined to be a little shocked at the figures of speech with which he accentuated the somewhat severe subject he was handling, and I know on one occasion that, coming in late, I ran against a Bishop who was sneaking up to the top of the Theatre, intending, as I supposed, to lie *perdu* and so satisfy himself as to whether the rumour of Dicky's methods of teaching was within the strict limits of the allowable. The lecture announced for the day was one which would have given full scope to familiar allusions, so I slipped into the Professor's door, as if by mistake, and luckily came face to face with him putting his chalks in order at the side table near the door. He looked very surprised to see me, and his lips tightened in a way that we all knew when about to castigate our mistakes. But he chuckled in his throat as I whispered swiftly, "There is a Bishop upstairs, sir." With a twinkle in his eye he said, severely, "This is not the students' door, sir," and I apologized volubly. Yet the Bishop was sold, for, without a word of apology or explanation, he suddenly exchanged his subject to the functions of the brain, and Homer's simile, "the words fell like snowflakes from his lips," can only partly describe the eloquence and beauty of that lecture. He never afterwards alluded to the subject to me, if, indeed, he ever recollected me; but once, long after, he told his prosector, who repeated it to me, that he was once saved by the tact of a boy from shocking a Bishop.

Mr. Clive Holland contributes to the July number of *Travel and Exploration* an illustrated article, Through Wessex in a Caravan. A caravan holiday in rural England is, he says, sure to be marked by experiences of a varied character. "To the average caravaner it is a matter of some embarrassment to be taken for a travelling "cure-all" or "quack," and to have his services requisitioned by a buxom dame for her "darter who's been took bad." Scarcely less embarrassing is it to be requested to undertake a funeral "'cos t' vicar be away to seaside on a 'ollerday," under the mistaken impression that the van is that of a "missioner." It is one of the misfortunes of a caravan holiday that some one may possibly have been there before, the previous year, perhaps, who was not a desirable type of gipsy. On more than one occasion Mr. Clive Holland has been accused of having on the previous trip sold some "cure-all" which "only made my ole man a thousand times wuss."

In an article dealing with researches on plague in Tunis during 1908, Dr. E. Conseil, of the Tunis Pasteur Institute, quotes in the original Arabic a passage from Avicenna, which shows that the connexion between rats and the plague was known in the tenth century. It is to the following effect:

> One will also note [among the circumstances accompanying plague] that rats and other animals living in the earth come to the surface, staggering as though they were intoxicated.

Dr. Conseil testifies from his own observation to the accuracy of this description. He has seen rats, when chased about the quays of Tunis, fall and die after running a short way. Bacteriological examination has shown that they were plague-stricken.

In the Middle Ages so little was known of toxicology that all sudden or mysterious deaths were attributed to poison; but in the light of modern knowledge many of these are now easily explained by such diseases as appendicitis or gastric ulcer. Even the Borgias may be absolved from many of the poisonings laid to their charge. Nevertheless, from very early times in Italy poison was a favourite means of "removing" an enemy. In England, France, and Germany cruder methods of vengeance prevailed, and it was not until the sixteenth century that the Medici introduced poisoning into France. The fashion spread with terrible rapidity, and poison was employed in every rank of society to get rid of inconvenient persons. It is said that the prior of Cluny and his valet, Saint-Barthélemi, even poisoned their physicians in order to avoid paying them. Dr. C. G. Cumston of Boston,

in a paper on The Victims of the Medicis and the Borgias in France, from a Medical Standpoint, discusses the question of poisoning in several well-known cases in detail, and makes out a plausible case for the conclusion that many so-called deaths from poison were in reality due to purely natural causes. Jeanne d'Abret, mother of Henry IV, who died of a fever after a four days' illness, was generally believed to have been poisoned by perfumed gloves. It was said that these gloves were placed in a box with a double bottom, the false bottom containing opium, belladonna, hyoscyamus, etc., and the poisons were supposed to have been administered during sleep, the box being exposed under the nostrils of the sleeper. Yet Palma Cayet, assistant preceptor to the future Henry IV, states that it was proved by a *post-mortem* examination that the Queen died of a pulmonary abscess. The Cardinal of Lorraine, uncle of Mary Queen of Scots, was said to have died immediately after touching poisoned pieces of gold. The evidence shows, however, that his death was due to pleurisy caused by a cold caught in walking with bare feet and head in a procession at Avignon. Catherine de' Medici was believed to have poisoned three of her sons—Charles IX, and the Duke of Anjou, and Francis II. Dr. Greene Cumston shows that all three were of weakly constitution. The first two died of consumption, while Francis II probably fell a victim to a meningitis with purulent absorption. He was a degenerate, and had been sickly all his life with adenoids and a discharge from the ear, which caused deafness; he was weakened further by diarrhoea, from which he suffered in childhood, and by too violent exercises. He is described by d'Aubigné as:

> Ne se purgeant ni par le nez, ni par la bouche, laquelle il portoit ouvert pour prendre son vent, dont il se forma un abcès à l'aureille, et puis des coliques fréquentes, marques mortelles à tel aage, ne promettant de luy aulcune durée aux plus advisez.

He was married at the age of 14; the greater part of his reign was spent in travelling in search of health. An account of his last illness and death is given by Régnier de la Planche in his *Histoire de l'Estat de France sous le règne de Francois II*, published at Paris in 1636. This author says:

> Le dimanche 15 novembre 1560, sur le soir, estant le roi à vespres au Jacobins, il luy prist un grand esvanouissement, qui fut cause qu'on l'emporta hastivement en sa chambre; et revenu de sa pamoison commenca à se plaindre de la tête en la partie de l'aurielle gauche, en laquelle il avoit en de tout temps une fistule, en sorte que de la douleur la fiebvre le print.

There was a consultation between Ambroise Paré, Nicole, and Servais as to the propriety of trephining; but the operation was not performed, and the King died on December 29th, 1560. His brother, Charles IX, who succeeded him, was also a sickly degenerate. He succeeded to the throne when very young, and his health, always feeble, completely gave way under the hardships of his miserable reign. According to Brantôme, he contracted a venereal disease. At the time of the massacre of St. Bartholomew he was very ill, and remorse caused him to grow worse rapidly. He could not sleep, and was haunted by visions of mutilated corpses. He did not long survive his murdered subjects. He died on May 30th, 1574, at the age of 23. The autopsy, made the day after his death by his surgeons, Paré and Guillemeau, leaves no doubt that he died of phthisis. Although in the light of present knowledge the cause of Charles IX's death seems plain enough, many of his contemporaries continued to believe that he had been poisoned, and the physicians and surgeons preserved an obstinate silence on the subject. Brantôme relates that he went with Strozzi to Paré to question him about the King's illness and death, but Paré would say nothing more definite than that Charles

> Estoit mort pour avoir trop sonné de la trompe à la chasse du cerf, qui lui avoit tout gasté son pauvre corps.

Another interesting poisoning case which exercised the minds of sixteenth century Parisians was that of Gabrielle d'Estrées. The divorce proceedings between Henry IV and Marguerite de Valois were almost concluded, and the preparations for the King's marriage with Madame d'Estrées had been actually started, when Gabrielle's sudden death during Holy Week, 1599, threw the royal plans into confusion. The doctors who made the autopsy gave no hint of poison, but public opinion at once attributed this mysterious death to the Grand Duke of Tuscany, who was accused of removing the King's mistress in order to render possible the marriage of his niece, Marie de' Medici, with Henry. But symptoms during Gabrielle's brief illness prove that her death was due to eclampsia. She had arrived at Paris on Tuesday, April 6th, and on the following Thursday, whilst in the church of St. Antoine, she was taken ill with headache and vertigo, and had to leave before the end of the service. She was seized with convulsions. One attack followed another, increasing in violence and frequency, and she died during the night of April 10th-11th without having regained consciousness. These few examples, taken at random, from Dr. Greene Cumston's paper, prove how easily suspicions of poison were aroused at the death of any well-known personage, and warn us to be careful in accepting such statements. Deaths attributed to poison abound in history, especially during the period covered by Dr. Greene Cumston. This was due partly to ignorance and partly to fear, but there is no doubt that whilst very many of the deaths which appeared to be the results of poison deftly administered by some jealous rival were due to the rapid development of a fatal disease, it is no less clear that there were a great many cases in which poison was used. The art introduced into France by Catherine de' Medici and her followers took root so deeply as to blossom later into the black magic of Louis XIV's reign.

Not long ago there was some debate among certain medical writers of authority as to the word *prodromata*, which has crept into general use. It is, of course, wrong, but then so are many other words which are in common use. What is the right word? *Prodromas*, which has lately been introduced as a substitute by a very distinguished author, suggests the question, What is the singular of the word? A singular "prodroma" can only be supposed to be the equivalent of προδρομή. But προδρομή is not a thing that goes before, but the act of running forward. *Prodroma* might be the plural of the adjective *prodromus*, but that could not justify such a form as *prodromas*. There seems to have been no noun πρόρομος in ancient Greek, though there is one in modern Greek, which means "forerunner" (see Modern Greek-English Dictionary, by A. Kyriakides, advocate; second edition, Athens, 1909). In classical Latin there was a noun *prodromus*, but without, as far as we can find, any special medical connotation. The word must, however, have come into use later, for we find in Bailey's *Universal English Dictionary* (sixth edition, London, 1733) the following passage:

> *Prodromus morbus* (among Physicians) is a disease which foreruns a greater, as the Straitness of the Breast is a Prodromus of Consumption.

Prodromi (subaud. *morbi*) would therefore be an admissible plural. But "prodrome" is both the most natural and the correct form. Bailey does not give the word, but it is found in the *Standard Dictionary* (Funk and Wagnall), where it is defined as "forerunner . . . *Prodromus* (Med.) as a forerunner of disease." The *Encyclopaedic Dictionary* gives "prodrome" with a quotation from *Sober Sadness*: "These may prove the prodromes . . . to the ruin of our monarchy." It gives also "prodromous symptom" in a quotation from Allen's *Synopsis Medicinae*. The passage from *Sober Sadness* with the date 1643 is in the *New English Dictionary*, which also cites Henry More, the Cambridge Platonist, as speaking of "a certain Prodrome of the Sun of Righteousness itself"; and Good's *Study of Medicine*, ed. 4 (1822–34), where he speaks of "the symptoms of invasion or accession, the prodromes of M. Deveze." Again, Thomas is quoted as saying in his *Medical Dictionary* (1864): "Vertigo is sometimes said to be a prodrome or precursor of apoplexy." *Prodromata* is described in the *New English Dictionary* as "an erroneous formation, apparently in imitation of such etymological forms as carcinoma, -omata, etc., possibly originating in a Latin prodroma sing. for the Greek προδρομή, a running forward, or in mistaking the neuter plural for a singular." Motherby, in his *Dictionary of Medicine* (third ed., 1791), gives *Prodromi* as a synonym of *Etesiae*, cool winds blowing from the east a little before the dog days (that is to say, forerunners). No dictionary gives *prodroma*. *Prodromata* is therefore a modern invention, and *prodromas* is a gratuitous barbarism. The choice lies between *prodromi* and *prodromes*. For ourselves we prefer the latter, as simpler, etymologically right, and English in form. It is used by Osler.

INTERNATIONAL CONGRESS ON ALCOHOLISM.

THE twelfth International Congress on Alcoholism was opened on July 19th in Kensington Town Hall, by the Bishop of GOTHLAND, chairman of the Permanent International Committee, who said that while a great advance in public opinion was to be acknowledged, more effective remedies were required, and he indicated specially increased punishment, including imprisonment for repeated drunkenness, and the compulsory confinement of inebriates.

Lord WEARDALE, president of the conference, delivered an address in which he welcomed the foreign delegates and said that the most important questions which the congress would have to discuss were, first, the influence of alcohol on childhood; secondly, the prevention of alcoholism among adults; thirdly, the medical aspects of the use of alcoholic beverages; and finally, the influence of alcoholism on native races.

The foreign delegates then addressed the meeting, among the speakers being the Austrian Minister of the Interior, and the President of the Senate of the Supreme Administrative Court of Berlin, who brought the greetings of the new Chancellor of the German Empire.

Temperance Teaching in Schools.

On the morning of July 20th a discussion on this subject was opened by two papers, read respectively by Miss CORA STODDART (Boston) on the relation of juvenile temperance teaching to national progress, and by Herr J. GONSER (Berlin) on the giving of antialcoholic instruction in schools. Miss Stoddart urged that instruction should be given early, and Mr. Gonser said that the progress made in a comparatively short time was most encouraging. Mr. GEORGE SHARPLES, representing the National Union of Teachers, said that the new code of the Board of Education marked a distinct step in advance, inasmuch as teachers were now empowered to point out to the child that danger lay in his path in the use of alcohol, and to give temperance instruction on food and hygiene. Miss MARY STURGE thought that the school caretaker's luncheon beer set a bad example, and that all caretakers should be abstainers; and Miss BREHN (Chicago) said that the question had already been discussed in Chicago, and that it had been proposed that to be consistent every member of the school board should be a total abstainer. Mrs. ALLI TRYGG-HELENIUS of Finland made a report on the organization of juvenile temperance societies throughout the world; in Norway and Sweden the work had been carried on with great energy and success, and in Belgium such societies had a large membership, and were subsidized by the Government. At the afternoon meeting, when Mr. J. Bystrom, a member of the Swedish Parliament, presided, Miss RICHARDSON read a paper on temperance teaching in higher schools, in the course of which she said that in the majority of English public schools for boys there was no systematic teaching of temperance or even of physiology and hygiene, and that in girls' schools hygiene was often taught by the gymnastic mistress. Mr. IVAR THULIN (Stockholm) said that dogmatic instruction would not give students a general interest in the subject, such a result could be obtained only by societies formed and conducted by students, as had been established with success in Scandinavia and America. Herr J. PETERSEN (Kiel) thought that the instruction as to the dangers of alcoholism should not be a special subject, but given in connexion with other subjects. Herr H. RISSEN said that seven years ago it had not been possible to induce a German student to become an abstainer, but that now in seventeen universities there were 400 active members of temperance associations which undertook the scientific study of temperance.

Alcohol in Medicine.

The British Medical Temperance Association gave a reception at the London Temperance Hospital, and afterwards a conference was held under the presidency of Professor SIMS WOODHEAD. Dr. A. HOLITSCHER of Carlsbad read a paper on alcohol in lobar pneumonia and enteric fever, which gave the statistics he had collected from 47 hospitals, in 18 of which a system of control experiments had been made. Among 238 cases of pneumonia treated with alcohol the death-rate had been 24.3 per cent.; among 248 cases treated without alcohol it had been 21.3 per cent. Of 47 cases complicated with *delirium tremens* alcohol had been prescribed in 21, of which 15 ended fatally, while of the 26 patients treated without alcohol only 9 died. It was shown that there was absolutely no foundation for the prevalent idea that alcohol was needed, at any rate in inebriate cases. No one would wish to make alcohol responsible for the difference between the 24.3 and 21.3 percentages owing to the smallness of the number of patients reported on; but the investigation demonstrated the complete failure of alcohol as a curative agent in such cases. Of the 161 typhoid patients reported on by eight institutions 80 had been treated by alcohol, of whom 15 died, and 81 without alcohol, of whom 12 died. The investigation had not settled the question. If records could be obtained of 20,000 cases, showing a death-rate no higher without than with alcohol, objection to the non-alcohol treatment would cease. Such stimulants as camphor involved certainly less risk.

Professor SIMS WOODHEAD said that although there was not sufficient evidence to put the case strongly and clearly before the public, medical opinion was coming round to agree with those who considered that alcohol should be discarded as a therapeutic agent.

Alcohol and Immunity.

In the evening Professor TAAV. LAITINEN, Director of the Hygienic Institute of the University of Helsingfors, gave the third Norman Kerr Memorial Lecture on the influence of alcohol on immunity, observing that it was well established that alcohol weakened the normal resisting power of the body. He gave results of certain experiments he had made on 223 persons, of different classes and ages; beginning with himself, he had selected abstainers and non-abstainers whose condition of life and habits were in other respects as nearly as possible the same. The research, which had extended over three years, was directed to the study of the blood conditions.

The following is a summary of the work and the conclusions to which it led him given by Professor Laitinen himself:

He sought to ascertain whether the resistance of human red blood corpuscles against a heterogeneous normal serum or an immune serum can be diminished by the use of alcohol.

He studied the action of alcohol in drinkers and abstainers on the haemolytic power of blood serum over heterogeneous red blood corpuscles (rabbits). He further studied the power of precipitation of alcohol in the presence of rabbit serum, with a view to ascertain if the reaction between a known dilution of rabbit serum and a certain dilution of serum of alcohol users and non-drinking persons was different or not, and if the reaction was more apparent with the former or with the latter. The resisting power of serum obtained both from alcohol drinking and from non-drinking persons was further tested by human blood, with the object of discovering whether any difference in reaction existed between the same immune serum and the two kinds of human serums above mentioned.

He studied the problem whether the haemolytic complement in the blood serum of alcohol drinking and non-drinking persons was altered in any way by alcohol. The bactericidal power of blood serum from both alcohol drinking and non-drinking persons was determined by experiments which gave the following results:

1. The normal resistance of human red blood corpuscles appears to be somewhat diminished against a heterogeneous normal serum or an immune serum by the consumption of alcohol, provided that tolerably large equal, or nearly equal, numbers of drinkers and abstainers of both sexes be examined, and the average of resistance be taken on both sides, this last-named precaution being necessary because the resistance of red blood corpuscles from different human beings varies largely. The difference is often greater when using weaker dilutions than when using stronger dilutions of lysin.

2. These experiments have shown the normal haemolytic power of human blood serum to be less in the case of alcohol drinkers than in that of abstainers.

3. The precipitating reaction between a solution of 1 per cent. human blood serum and different dilutions of immune serum (obtained by immunizing the animals with human blood serum) was greater in the case of drinkers than in that of abstainers.

4. The complement action of human blood serum, according to these experiments, was greater in the stronger dilutions (0.4 to 0.04) and less in the weaker dilutions (0.02 to 0 0004) in the case of drinkers than in that of abstainers; it was not, however, much affected.

5. These experiments have also shown that the bactericidal power of blood serum against typhoid bacteria was less in the case of drinkers than in that of abstainers.

It seemed clear, therefore, that alcohol, even in comparatively small doses, exercises a prejudicial effect on the protective mechanism of the human body.

THE ENZYME TREATMENT OF CANCER.

A COMMUNICATION by Dr. William Seaman Bainbridge, of New York, entitled Trypsin in Cancer, a Preliminary Statement, was published in the BRITISH MEDICAL JOURNAL of March 2nd, 1907. The determination was there expressed of giving to the "Enzyme Treatment," as outlined by Dr. John Beard, of Edinburgh, a thorough scientific test, in a sufficiently large number of cases and over a long enough period of time, to warrant some claim to finality when conclusions were drawn. Now, more than two years since the "Preliminary Statement" was made, and full three years since he began to employ the enzyme method, Dr. Bainbridge has published a final report, of which he has been good enough to send us a copy. It is a very extensive and elaborate document, with carefully tabulated details and charts, and we much regret that, owing to want of space, we are unable to give more than a brief summary of it.

The New York Skin and Cancer Hospital furnished ample clinical material from which to draw a large proportion of the cases in which the method was tried. To employ it only in advanced, irremovable, and inoperable cases, says Dr. Bainbridge, was simple enough, but such cases do not give a sufficient basis for a complete trial. The surgeon, who must look upon the matter not as a "pure scientist," but as a clinician and a humanitarian, cannot bring himself voluntarily to subject a patient with cancer in an early stage, when it is amenable to complete removal by surgical intervention (certain local superficial growths in the judgement of some being excepted), to experimentation with *any* non-surgical method, no matter upon what scientific basis it may be exploited. Consequently such a method may be tried in early cases only where, despite the surgeon's earnest advice, operation is positively refused by the patient. Inasmuch as the treatment of necessity extended over weeks and in some instances months, it was not feasible in all cases to care for the patients in the hospital. In these circumstances, when the patient could not afford the expense, it was necessary to furnish medical attention and employ trained nurses to administer the treatment, and carry out the régime in the home after the patient's discharge from the hospital. To follow up the records in all cases from week to week and from month to month in such a manner as to render possible an accurate report of each, meant, in many instances, tracing the patient from tenement to tenement, sometimes from city to city.

Dr. Bainbridge acknowledges with thanks the hearty co-operation in the work of Dr. Martha Wollstein, Pathologist to the New York Skin and Cancer Hospital; Dr. James Ewing, Professor of Pathology, Cornell University Medical Department; Dr. F. B. Mallory, Professor of Pathology, Harvard University Medical School; Dr. S. Elizabeth Finch, Assistant Pathologist to the New York Skin and Cancer Hospital; Dr. F. M. Jeffries, Pathologist to the New York Polyclinic Medical School and Hospital; Dr. F. D. Jessup, of the Department of Pathology, College of Physicians and Surgeons; Dr. E. E. Smith, Pathologist to Fordham Hospital, and others, for their valuable assistance in the laboratory phases of the work; Dr. J. Douglas Malcolm, of the staff of the New York Skin and Cancer Hospital, for his assistance in administering the treatments and following up the cases after their discharge from the hospital; Dr. Loy M. Ingram, Statistical Secretary to the Committee on Scientific Research of the New York Skin and Cancer Hospital, for accurate collation of scientific data; and the various graduate nurses who have carefully carried out the details of the regimen in the homes of many of the patients.

The Method.

In regard to the method, Dr. Bainbridge says it is sufficient for his purpose to say that at all times during the trial of the enzyme treatment he has been in close touch with Dr. Beard, of Edinburgh, and has followed the essentials of his method in all respects save one. When he first began to test the treatment, Dr. Beard advocated its use in all cases after operation for the removal of cancer, whether primary or secondary, and in all inoperable cases. In this Dr. Bainbridge readily concurred. When, however, at a later date, Dr. Beard modified his views, and opposed the removal of any "living cancer," declining to accept as a scientific test any case in which there had been previous operation, of course Dr. Bainbridge demurred. This demand was met, however, in cases where operative intervention was positively refused, and while the method has not been tried exclusively in such cases, it was tested in a sufficient number to meet this requirement with justice to Dr. Beard's modified views. In addition to the use of enzymes, many details of management were urged by Beard. His various suggestions were incorporated in the directions for the "full régime," and were employed in the test, with modifications to suit the needs of the individual case. In all cases, unless otherwise specified, this regimen was executed in every instance, a copy of the directions being given to each one who administered the treatment.

DIRECTIONS.

1. *Physical examination*, accurate and complete, made upon commencement of the treatment.

2. *Records* of each case, accurately and fully taken *daily*, with *weekly* records of the condition of the Urine, Blood, and, if possible, Blood Pressure, and Weight. Both subjective and objective symptoms to be carefully noted.

3. *Diet*, wholesome and nourishing, with very little salt and no acide. Large quantities of water to be taken by the patient.

4. *Exercise* moderate.

5. *Hygienic surroundings* as good as possible, with abundant fresh air.

6. ORAL TREATMENT: (1) *Holadin*, 1 capsule t.i.d., one hour before meals. (2) "*Pepule*" *Ox-gall compound*, 1 or two pills at night, according to requirements (to give tone to the bowels).

7. LOCAL TREATMENT: *Lotio Pancreatis.*—To the quantity required for a single application, add an equal volume of freshly distilled water (unless ordered to be employed undiluted) and apply freely. Use twice daily, flushing the surface carefully with boiled water previous to renewal of solvent.

8. *Hypodermic Treatment*: (1) *Injectio Trypsini* (Special XX). Begin with 10 minims daily, increasing 5 minims each day until some marked reaction takes place, or until two ampoules (20 minims each) are being taken each day.

(2) *Injectio Amylopsini.*—When the trypsin injections have been increased to 40 minims daily, injections of amylopsin are then begun on alternate days with trypsin, never on the same day. Commence with 10 minims, increasing 5 minims each day until the maximum dose is reached, namely, 40 minims of trypsin one day and 40 minims of amylopsin the next.

Before making the injections apply ethyl chloride to the surface to be injected (preferably over the buttocks), or inject ⅓ grain eucaine; then inject the trypsin or amylopsin into the deeper subcutaneous tissues, not into the muscles.

NOTE 1.—The greatest care, cleanliness, and nicety in every detail must be observed.

NOTE 2.—The doses must be regulated with careful regard to the reactions observed.

NOTE 3.—The contents of the ampoule must be used *only when freshly opened.*

NOTE 4.—The ferments are destroyed by antiseptics; care must be taken, therefore, not to render them inert by contact with such substances.

NOTE 5.—If there is any local irritation from the injection, despite the greatest care, dilute with equal parts of distilled sterilized water before injecting, or with equal parts of sterilized normal salt solution.

NOTE 6.—The general condition of the patient must be given careful attention. As little narcotic medication should be given as possible, tonics and predigested foods, if indicated. Elimination by bowels, kidneys, and skin is of the utmost importance.

NOTE 7.—The treatment, after well started, is said to have a definite control over pain. Over-drugging should be avoided, in order that this claim may be carefully studied in relation to the cases.

NOTE 8.—Injections of amylopsin should not be given while the patient's stomach is empty, as the tendency to nausea is increased under such circumstances.

NOTE 9.—If irritation results from the introduction of the entire injection in one locality, this may be overcome in the following manner: Introduce the needle tip into the tissues, inject a portion of the material, withdraw slightly, introduce in another direction and inject another portion, and so on until the entire amount is inserted into the subcutaneous tissues in "puddles" at some distance from each other, but with one

common point of puncture. By taking this precaution the tissues will not be overdistended, and the tendency to irritation will be lessened. The needle should be inserted obliquely, so that the material will not escape in part through the puncture point.

The Materials.

The materials employed were supplied by Mr. B. T. Fairchild. They consist of the following: (1) Holadin capsule, a pancreas gland extract containing all the pancreas enzymes—trypsin, amylopsin, and lipase, and the milk-curdling ferment. This is given to aid digestion. (2) "Pepule" ox-gall compound, which contains inspissated ox gall, extractum pancreatis, and extract of nux vomica: this gives tone to the bowel and aids in elimination. (3) Lotio pancreatis, a glycerine extract prepared directly from the fresh gland and carrying in solution the entire soluble gland constituents. This solvent of broken-down tissue is applied topically to the ulcerating surfaces. (4) Injectio trypsini, a glycerine extract of trypsin, which, according to Beard, was supposed to "kill" the cancer cell. (5) Injectio amylopsini, a glycerine extract of amylopsin, which was thought to "digest" the dead cancer cells.

The first pancreas injections were made of a proteolytic power equal to 2 per cent. of trypsin (Fairchild), and adopted in consequence of a strength or "percentage" of trypsin (Fairchild) at first extemporaneously prepared and used by Beard and others. The medium, 60 per cent. glycerine, had already been found to meet the requirements, containing the enzymes of the fresh pancreas extract in an active and sterile condition. This, however, necessitated preliminary dilution in making the injection ready for use. Gradually clinical experience warranted an increase in tryptic power, until finally this desideratum could be achieved only by a more aqueous medium, and consequent reduction to 20 per cent. glycerine. This lower content of glycerine afforded the advantage of increase of trypsin content and increase of dosage, as found in the ampoule.

The various injections of trypsin furnished for use were identified for convenience of record as follows:

"Regular," 60 per cent. glycerine, equal to 2 per cent. trypsin (dry), Fairchild; "Fortified," 60 per cent. glycerine, double the strength of the "Regular"; "Special," 20 per cent. glycerine, double the strength of the "Regular"; "Special XX," 20 per cent. glycerine, four times the strength of the "Regular" (this was used in most of our cases); "Special Quadruple X," 20 per cent. glycerine, six times the strength of the "Regular" (prepared especially for this test, and said at the time to be the strongest it was possible to make).

Injections of amylopsin of corresponding strengths were furnished. The 20 per cent. glycerine-amylopsin injection presents parallel advantages with the 20 per cent. trypsin injection, in increased potency and in available volume of dosage without dilution. Thus 20 minims of the 20 per cent. glycerine "special" carries an enzyme potency corresponding to a 60 minim injection composed of 20 minims of 60 per cent. glycerine solution from an ampoule with 40 minims of diluent—sterilized water.

The injections used in many of the tests were much stronger than were those employed in the cases reported by a number of writers during the earlier months of the history of this method. The idea entertained by many at first—that only moderate doses of weak solutions of trypsin could be tolerated—was proved to be entirely erroneous. In many cases Dr. Bainbridge and his fellow workers were able to give daily two or three ampoules (twenty minims each) and in several instances 100 minims for days at the time of the "Quadruple X" solution with no untoward effects. From this it will be seen how absurd were some of the earlier claims of "cures," as well as of the strange symptoms and "terrific" results from the small doses employed. A careful study of the blood and urine in a certain number of cases was made, the results of which are given in great detail.

Effect of Trypsin upon the Tissues.

In submitting sections to pathologists for examination, in all cases where the tissues were removed after the institution of the enzyme treatment, it was requested that especial attention be directed to the determination of any structural changes that might in any way be attributable to the action of trypsin. Whenever it was possible to do so sections were removed from time to time, care being taken in every instance not to encroach upon Nature's barriers. Comparative studies were thus made of the pathological tissues before beginning the enzyme treatment, at various times during its course, and in some instances after the death of the patient.

Dr. F. B. Mallory, Professor of Pathology, Harvard Medical School, who made a number of examinations, found nothing that he could in any wise attribute to the action of the trypsin.

Dr. Martha Wollstein, Pathologist to the New York Skin and Cancer Hospital, who made the largest number of examinations during the course of the test, found no tissue changes which could be ascribed to the action of the trypsin.

Dr. James Ewing, Professor of Pathology, Cornell University Medical Department, after careful study of the specimens submitted to him, made the following statement:

In several sections the central cells in many tumour masses were loosened, degenerating or necrotic, while only the outer layers of cells adherent to an infiltrated lymph space seemed to retain their vitality. In some cases of cancerous infiltration of the uterine muscles originally larger tumour cell masses appeared to have been reduced by this process to thin strands of degenerating epithelial cells, and in some rather wide areas the tumor infiltration took the form of isolated cells scattered at wide intervals.

In some cases a peculiar oedema and vacuolar degeneration was prominent, but this condition differed only in degree from that sometimes seen in untreated cases.

Occasionally there was encountered a peculiar oedema and granular degeneration and fragmentation of fibrous, connective, and smooth muscle tissues which I have not seen in untreated cases. In all the cases considerable portions of the growth appeared little or not at all affected by the above-mentioned degenerative processes, a fact which may account for the steady clinical progress of the disease. In one or two cases there appeared to be no change whatever referable to the treatment.

Work of Others.

In order to ascertain the experience of others with the method, letters of inquiry were sent to more than 3,000 representative physicians and surgeons, a large proportion of whom had been furnished material by Mr. Fairchild, and were known, therefore, to have employed the treatment.

Seven hundred and eighty replies were received. Of this number 304 reported no experience. Those having had experience reported a total of 949 cases treated. Of this number of cases 248 were given as favourably influenced as to pain, local or general condition, but not as to the ultimate outcome of the disease. With the exception of 13 cases, the remainder were reported as doubtful or negative. In his summary Dr. Bainbridge has excluded a consideration of reports which were clearly fictitious—for example, as when a physician makes the sweeping statement that he has employed the method in over 100 cases, all of which were cured. The 13 alleged cures do not embrace the celebrated "Case No. 1," and others of Morton's published report.[1] Of the 13 cures, 4 had only the clinical diagnosis, and the evidence in support of malignancy was insufficient. In one of these cases the physician who reported it expressed doubt as to the correctness of the diagnosis. In the other 9 of the 13 cures, some of which were still under treatment when the report was made, the end result is not known, but, reasoning from analogy, it is quite probable that these, like the celebrated Case No. 1 of Dr. Morton's series, have made their exitus while being published as cured.

In connexion with these supposed cures, it is pointed out that those stated most positively as cured up to the time of report were diagnosed as cancer of the stomach. How much of the improvement in any of the cases is attributable to the régime is a question. The fact that the control cases did as well with injections of glycerine and sterile water, or sterile water alone *plus* the régime, as did the others with the full enzyme treatment, leads to the belief that the régime plays a most conspicuous part in the production of whatever favourable results were noted.

Prospect and Retrospect.

Dr. Bainbridge recalls that in his previous paper on trypsin attention was directed to the fact that it should always be borne in mind, in testing a so-called cure for cancer, that between the starting point, "no evidence,"

[1] See BRITISH MEDICAL JOURNAL, January 19th, 1907, p. 158; and EPITOME of the same date, Par. 33.

and the hoped-for goal, "a cure," there may be many way-stations of usefulness. In the trial of the enzyme treatment he and his coadjutors have kept this ever in mind. While, unfortunately, they have not reached the goal of either prevention or cure, they believe there are several way-stations of usefulness along the route.

The internal medication and the local solvent have their place as adjuvants in the cure of the patient afflicted with cancer; the dietary régime, forced feeding when necessary, exercise, and fresh air do much in these cases, as in other chronic conditions, to ameliorate the ravages of the disease. The trypsin and amylopsin, though employed in every manner suggested by Dr. Beard, have not, in their experience, substantiated the claims of curative and preventive properties advanced for them. Whether trypsin will be found to be of the diagnostic value which some of the German workers have predicted, remains for further tests and more extended research to determine.

Looking back upon the work of the last three years, the most important lesson to be drawn from the test of the enzyme treatment of cancer is that the patient is a human being who, while suffering from cancer, it is true, may at the same time be the subject of any of the other ills to which flesh is heir, and who doubly deserves to be treated with all the careful scientific attention which modern medicine and surgery command. By building up the nutrition, aiding the impaired function of elimination, treating complications, giving to the patient a better mental as well as physical atmosphere—in other words, treating the patient and not the "cancer case"—suffering can be wonderfully ameliorated and life, in many instances, prolonged in comparative comfort for months and even years.

Summary.

Dr. Bainbridge concludes that, from careful clinical and laboratory observations made on 100 cases, and extending over a period of three years, the following deductions may be drawn:

1. That the internal medication with holadin and oxgall aids digestion and increases elimination.
2. That lotio pancreatis applied locally clears the ulcerating surface by removing organisms, thus aiding in diminishing the absorption of their products.
3. That aiding digestion, increasing elimination (by skin, kidneys, and bowels), and decreasing local absorption are the most important features of the treatment.
4. That the régime, by increasing resistance, may in some cases decrease the rapidity of the malignant process.
5. That control cases given injections of glycerine and water or sterile water alone, *plus* the régime, did as well as those on the full enzyme treatment.
6. That injectio trypsini, in some cases, seems to cause more rapid disintegration of (to "liquefy," according to Beard), cancerous tissue.
7. That while it may accelerate the breaking-down in the centre of the tumour mass, the periphery is found to be actively growing, as was true of Case 1 of Dr. Morton's published series. When injected into the tumour itself this disintegration is more marked.
8. That because of the tendency of injectio trypsini disintegrate the tissues, it may be a direct menace to life (*a*) by eroding large blood vessels (when the disease is contiguous to these structures, as when deep in the neck or in the pelvis), thus causing death from haemorrhage; (*b*) when given in large doses, over considerable periods of time, by overwhelming the system with toxic products (tumour toxins), thus in some cases hastening death.
9. That the injections are often painful, and patients many times refuse to take them.
10. That the so-called "trypsin abscess" proved, upon examination of the material, to be unabsorbed injectio trypsini *plus* broken-down tissue.
11. That when real abscesses formed they were due to faulty technic, to localization of a general sepsis resulting from the absorption of toxic products, to an accompanying sepsis of whatever origin, or to a complicating acute infection.
12. That injectio amylopsini seems to diminish cachexia in some cases, in accordance with the claims of Beard and others.
13. That in some cases there was no reason to believe that that injectio amylopsini exerted the action claimed for it.
14. That when amylopsin was injected directly into the indurated area left after injecting trypsin, absorption of the trypsin solution was not hastened.
15. That 100 minims daily of the "Quadruple X" solution, the strongest made, were given in some cases with no untoward effects.
16. That improvement in haemoglobin (5 to 12 per cent.) during the first few weeks of trypsin treatment occurs in about one-sixth of the cases examined. In only one-third of these was the increase ascribable to the trypsin alone.
17. That a gradual and moderate increase in the number of polymorphonuclear neutrophile cells was noted during the first two weeks of the trypsin treatment in a few of the cases.
18. That with the exception of 2 cases such leucocytosis as was noted was attributable to the occurrence of complications during the first two weeks of trypsin treatment.
19. That in 15 out of the 22 cases in which special blood counts were made a steady increase (6 to 12 per cent.) in the number of eosinophile cells was noted while patients were on the trypsin injections. There was no eosinophilia in the control cases, nor in the cases treated by trypsin given by the mouth.
20. That eosinophilia occurred regularly in cases of carcinoma involving the bones or the intestines, even without the exhibition of trypsin.
21. That the claims for eosinophilia as a test have not been substantiated in our experience.
22. That albumen and casts were found in the urine before treatment was begun in two cases. In neither of these was the amount of albumen or the number of casts increased at any time throughout the continuation of the trypsin injections.
23. That in severe cases in the very last stages of the disease, hyaline, granular, few pus casts, and occasionally albumen, made their appearance.
24. That in two other cases in which it was impossible to obtain specimens of urine before beginning the treatment, albumen and casts were present when the cases came under examination; and as the trypsin doses were increased, the amount of albumen and the number of casts were increased.
25. That dextrose was at no time found in any of the urine specimens examined, not even when untoward manifestations of trypsin were present and large doses of amylopsin were being given.
26. That the series of experiments which were conducted for the purpose of ascertaining the presence or absence of an enzyme in the urine with properties of digestion similar to trypsin, showed the presence of such an enzyme body (irregularly present) in (*a*) trypsin-treated cancer cases, (*b*) non-cancerous untreated cases, (*c*) cancer cases which had not received the trypsin treatment.
27. That the exact constancy of this enzyme body in the urine with reference to the treatment was not ascertained. No enzyme body was found in urines in which there was ammoniacal decomposition.
28. That the enzyme treatment, as administered in the cases herewith reported, and according to the suggestions of Dr. Beard, *plus* important details of régime, does not check the cancerous process.
29. That it does not prevent metastasis.
30. That it *does not cure cancer.*

MOTOR CARS FOR MEDICAL MEN.

F. H. asks whether a 6-volt accumulator with corresponding "coil" (instead of the ordinary 4 volt) would do any harm to the valves, etc., of an 8-h.p. car (single cylinder)? I have been running, he adds, on a 6-volt current, as an experiment, with great increase in power. I have been told that I should not do so, and that if I wanted a "bigger spark" I should have a magneto fitted. My coil and accumulator (6 volt) cost about £2 10s.; a magneto would cost £15 to £20.

*** A 6-volt accumulator can be used under the circumstances stated with perfect safety to everything except the coil. Though some coils intended for 4 volts will stand 6 volts without breaking down, it is an unfair strain on the insulation, but a good coil, specially wound for 6 volts, should be quit durable. When dry cells are used instead of accumulators is usual to have 6 volts, on account of the small ampèrage of the current, even with a 4-volt coil.

Medical News.

DR. P. W. DE LA MOTTE, who has practised in Staines for more than thirty years, was recently presented with a silver bowl bearing a suitable inscription and a cheque for £125 by friends and patients. The presentation was made by Sir Edward Clarke, K.C., who said that Dr. de la Motte had always been the kindliest of doctors to the poor, who had shown their gratitude by joining in the presentation.

IN June, 1906, the London Education Committee established a special school for children suffering from favus, the majority of whom were resident in a small district. After a time a regular method of cleansing the children's heads and systematically disinfecting the surface several times a day was adopted. In May, 1908, an *x*-ray apparatus was installed, and, after its regular use for twelve months, only two or three children remained uncured. Altogether in the four years 142 children were admitted; 123 left cured, of whom 108 returned to the ordinary school; 16 children left for other reasons. All the cases treated, with the exception of one Irish child, were of alien descent, and though it is expected that families will arrive from time to time with several members affected, it is not considered necessary to maintain the special school, as it is believed that the small number of cases to be anticipated can be treated as out-patients.

THE sixteenth annual meeting of the National Society for Epileptics was held at the London office, Denison House, Westminster, on July 19th. Mr. Montefiore Micholls, who was in the chair, said that the extension of the Chalfont colony had continued, a new home for 26 epileptic women having been opened in the middle of 1908; since then two homes for epileptic children, one for boys and one for girls, each to accommodate 24 patients, had been completed, and would be opened during the autumn; the cost of the building, which amounted in each case to £3,500, had been defrayed by Mr. Frederick Green, the late Mr. C. A. Tate, and Mr. H. Woolcott Thompson respectively. It was reported that the colony now had accommodation for 224 adult patients, but as there were 40,000 epileptics in the country, of whom a considerable proportion would be suitable cases for treatment at Chalfont, the accommodation was obviously inadequate. At present male applicants had to wait two years for admission, and additional homes for men were urgently needed.

THE annual meeting and dinner of the Brussels Medical Graduates' Association was held at the Garden Club, Imperial International Exhibition, on July 15th. Dr. Richard Paramore, the President, was in the chair, and twenty-five members and guests sat down to dinner. After proposing the health of the King, the President read letters from Lord Strathcona, Sir Thomas Barlow, Bart., Sir William Collins, M.P., and Mr. Butlin (President of the Royal College of Surgeons), expressing their regret that they were unable to attend. The President then called upon Dr. Oliver, the guest of the evening, to propose the toast of the Brussels Medical Graduates' Association. In responding to this toast, the Honorary Secretary (Dr. Arthur Haydon) said that during the past year considerable progress had been made, for, as the result of his visit to Brussels last summer to interview the University authorities, he had much pleasure in saying that every one of the recommendations made by the Council had since been carried out, and that the Association had been officially recognized by the University of Brussels. He hoped to be able to organize an annual meeting and dinner at Brussels next year during the great Exhibition of 1910. Dr. Major Greenwood and Dr. Kirby also spoke. Dr. R. Paramore, Dr. Major Greenwood, and Dr. Arthur Haydon were elected president, honorary treasurer, and honorary secretary respectively for the ensuing year. After dinner a musical entertainment was carried out in the drawing-room by Miss Marshall and Dr. Haydon.

ON July 19th a memorial tablet commemorating the birthplace of Sir Morell Mackenzie was unveiled at Leytonstone. The house in which he was born more than three score and ten years ago has, owing to the growth of the district, undergone many changes. It is situated at the corner of Browning Road, and is now designated 742, High Road, Leytonstone. Here Sir Morell Mackenzie and his elder sisters were born. The memorial tablet has been erected by the Leyton Urban District Ratepayers' Association. After the honorary secretary (Mr. R. J. Tallack) had announced the receipt of letters from those prevented from being present, Mr. A. Munro, acting as chairman of the committee, referred to the lasting and far-reaching work of Mackenzie, and to the satisfaction it gave them in Leytonstone to commemorate his birthplace. Mr. D. J. Morgan, J.P., and formerly M.P. for the Walthamstow Division, then unveiled the memorial and spoke of his personal recollections of Sir Morell Mackenzie, of his great industry and perseverance, which were crowned with success in spite of the difficulties he had to contend against early in life. The tablet bears the simple inscription: "Sir Morell Mackenzie was born here, July 7th, A.D. 1837. Erected by L.U.D.R.A., 1909." Dr. C. H. Panting (Leyton) spoke on behalf of the local members of the medical profession. Laryngology was represented by Dr. Dundas Grant and Dr. Jobson Horne. The former added a tribute to the memory of the great laryngologist. Dr. Morton Mackenzie (Dorking), in the absence of Sir Stephen Mackenzie, expressed the thanks of his family to those who had erected the memorial.

A GREY rustic granite cross with panelled bases has been erected by the friendly societies of Chard and district "in memory of their beloved medical officer," the late Dr. Benjamin Lambe Powne, who died on July 1st, 1908, aged 65. Such a tribute to the memory of a medical officer is perhaps not common, but it may encourage those who believe that under a properly devised and administered provident system the relations between the medical profession and the working classes might be made satisfactory. A correspondent who some years ago assisted Dr. Powne for over two years writes to say that he was much impressed by the cordial relations which existed between Dr. Powne and his club patients; his unwearying courtesy, kindness, and attention never failed to win their confidence and affection, and he never lost an opportunity of impressing upon young men the wisdom of joining a good friendly society. At about the time mentioned Dr. Powne found that 4s. a year was not sufficient remuneration for the medical attendance such as his club patients received; he pointed this out to influential members and to the secretaries, with the result that most of the societies at once increased the payment to 6s., others to 5s., only a few finding themselves unable to increase the rate. The members who thus recognized Dr. Powne's services in a practical manner during his lifetime have now paid a graceful and handsome tribute to his memory.

THE second quinquennial meeting of the International Council of Nurses was held at the Church House, Westminster, on July 20th, and was attended by representatives of nursing associations in all parts of the world. The central aim and idea of this international body is, we understand, the promotion of self-government among nurses, the raising of standards of nursing education and ethics, and of developing in every nurse both the human being and the citizen, thus to enable her better to apply her knowledge and skill to the many-sided service demanded of her by modern social conditions. The proceedings were inaugurated by an address from the honorary president, Mrs. Bedford Fenwick, after which reports from the federated councils were presented, and four new countries were formally admitted—namely, Holland, Finland, Denmark, and Canada. Fraulein Agnes Karll, of Germany, was then elected to succeed Mrs. Bedford Fenwick as honorary president, and it was decided that in future the conferences shall take place triennially, the next being held at Cologne in 1912. Descriptions of the position of nurses and nursing in their respective countries were read by the representatives of France, Italy, Sweden, Belgium, Switzerland, Japan, and Syria, and a resolution in favour of State registration of nurses was likewise adopted. An international congress of nurses commenced on the following day, the proceedings being opened by Miss Isla Stewart, matron of St. Bartholomew's Hospital, who said that in the higher development of all organized occupations a time came when their followers realized that they were capable of governing themselves, and that it was their duty to do so, and nurses had now reached that stage. The numerous papers read included one by Mr. D'Arcy Power, who said that private nurses ought to be recruited from higher and best educated social grades. When they were not popular in households it was usually because they tried to force upon such households the routine of hospitals. Dr. Rose, of the Education Department of the London County Council, spoke of the value of the open air school, one of the first outcomes of medical inspection. The part to be played in them by a nurse was more important than in ordinary schools. In connexion with the conference a nursing exhibition has been opened at Caxton Hall, and receptions have been held at St. Bartholomew's Hospital, at Dorchester House (the American Embassy), and at the Mansion House; while Thursday's programme included an address by Mr. Haldane, M.P., on "The Nurse as a Patriot."

British Medical Journal.

SATURDAY, JULY 24TH, 1909.

THE TREATMENT OF DISEASE.

In an address recently delivered before the Ontario Medical Association, and published elsewhere in the present issue, Professor Osler deals with the treatment of disease in a broad-minded spirit, which is rare even at the present day when experimental research and accurate observation have freed medicine from the shackles of hypothesis and tradition. He recognizes that the highest aim of medicine is no longer cure but prevention, and he further recognizes that there are diseases which are, with such means as we have at our disposal, incurable. To the enthusiast this is a hard saying; but it is true, and it is, therefore, well for the doctor as well as for the patient that it should be frankly acknowledged. After all, it expresses what Herophilus meant when he said that the best quality of a physician was the power to distinguish between the possible and the impossible. It is the pretence of being able to cure all diseases that constitutes quackery; but the delusion honestly nourished by too many practitioners that the demon of disease can be exorcised by drugs, if only the right one can be found, is almost equally pernicious. It brings the profession into contempt, and we fear we must say that it is largely responsible for the manifold forms of quackery and superstition which is a characteristic of the present time. The sufferers themselves cannot be blamed if, when they find that medicine can do nothing for them, they seek relief elsewhere. Nevertheless, it is the duty of the scientific practitioner to recognize the limitations of his art; and if he loses a few patients by such frankness, he will gain the confidence of the more intelligent. Anything of the nature of sacerdotalism—by which we mean mystery and the belief that we belong to a sacred caste whose work is beyond the criticism of the profane—is utterly out of place in medicine. As Professor Osler well says, we work by wit and not by witchcraft; and while we must do all we can for the relief of suffering, we must not bring the art of medicine into disrepute by promises of cure which we have not the power to fulfil.

Here we venture to interpose a word to prevent a possible misunderstanding of Professor Osler's teaching. There are undoubtedly many diseases before which the physician can only indulge, as Asclepiades said of the expectant treatment of Hippocrates, in a "meditation on death," and which the most aggressive of modern surgeons would not dare to attack. While it would be wrong to promise a cure in such cases, it is equally wrong to abandon the patient to his fate without attempting to relieve his sufferings. To stand with folded arms by the bedside of a man doomed to death by a lingering disease is, we think, not merely cruel; it is unscientific fatalism. As Sir James Paget said, it is the doctor's duty, even when he knows the case to be hopeless, to fight for his patient to the very last. We may illustrate our meaning by a story which can be told now without offence, as both the great men concerned have long passed beyond the reach of human criticism. One was called to see a patient whom, with characteristic honesty and bluntness, he pronounced to be suffering from cancer of the liver, for which nothing could be done. Recourse was then had to another physician, who with equally characteristic suavity said that, although it was unfortunately true that the patient had an enlargement of the liver which could not be said to be benignant, a great deal could be done to alleviate the disease. So he continued to attend the patient for some months, relieving symptoms as they arose, and soothing the dying man's pillow till he fell into the sleep that knows no waking. Now, it may be said that one of these physicians was honest and the other was not. This, we submit, is a rash judgement. There can be no doubt that the sufferer's last days were made more tolerable for him by the ministrations of the man who stood by him to the last, and we go so far as to say that he, rather than the other, did his duty as a doctor. Even if he did not prolong life, he made death more easy; and there are many cases in which, though the end cannot be averted, it can be delayed, giving the patient time to set his house in order in preparation for the great change.

Professor Osler traces the progress of medicine and its victories in recent times with a master hand, and he indicates what the future holds in it of hope for further progress. He looks forward to the discovery of means of preventing or correcting the perversion of function which leads to exophthalmic goître, Addison's disease, and acromegaly, in ways similar to that in which myxoedema can now be dealt with, and of placing the treatment of diabetes on a sure foundation. He sees prospects of advance in other directions; but he bids us in our pride of progress remember cancer and pneumonia, in which we are still powerless to do more than relieve symptoms. There is comfort, however, in his prediction that there are those among us who will live to see a true treatment of pneumonia. It were to be wished that a similar certainty could be expressed with regard to cancer. The method of dealing with disease which Professor Osler finds most hopeful is wholly the fruit of experimental research; and there can be no doubt that it is on the unfettered prosecution of such research that the progress of medical science depends. In the use of drugs he is as *parcus et infrequens* as Horace describes himself to have been in the worship of the gods. In this he follows the stream of tendency. Gull said: "One thing I am thankful Jenner and I "have together succeeded in doing. We have dis- "abused the public of the belief that doctoring con- "sists in drenching them with nauseous drugs." But it is only fair to say that before Gull or Jenner there was Hahnemann, who, though all unwittingly, prepared the way for the overthrow of the old temples of medicine in which the rites of exorcism by purgatives, emetics, expectorants, depressants and remedies which might have been the brew of the witches' cauldron, were ruthlessly carried out. The infinitesimal doses of homoeopathy proved that many diseases got well of themselves, and that in none was the pouring of substances of which little was known into bodies about which nothing was understood—as Voltaire described the art of medicine—necessary or useful. Professor Osler does indeed hold fast by a few drugs, and he urges that the action of these should be scientifically studied in the sickroom after previous experimental testing in the laboratory. This will save

practitioners from the thraldom of the manufacturer of medicines into which, owing to their want of first hand knowledge of the effects of drugs, they are in danger of falling at the present day. It is only right to acknowledge that we owe much to the manufacturer, but while we gladly accept his dainty preparations, we cannot recognize him as a teacher of pathology or therapeutics.

Professor Osler has much that is interesting to say about faith healing, old and new. His attitude in regard to the matter is the same as that long maintained by the JOURNAL. While warning us against the Nemesis of Faith, which in all ages overtakes not only the public but the doctor, he fully admits the remedial potency of suggestion, and he holds that much more attention should be given to psychotherapy than is now the case. In his own practice the psychic element has a well-defined place, and he virtually acknowledges the truth of a friend's joking description of his method of treatment as a mixture of hope and nux vomica. If he would not altogether agree with Petronius that *medicus nihil aliud est quam animi consolatio*, he recognizes the great, though yet undetermined, influence of the mind on the body. The medicine of the day is perhaps a little too much dominated by the dogmatism of the laboratory, and it is well to be reminded by one whose utterances justly carry weight with the whole profession of the importance of the psychical factor in disease and its treatment.

MEDICAL PRACTICE IN INDIA.

IN 1900 Lord George Hamilton, then Secretary of State for India, in a dispatch to the Government of India, expressed the opinion that it would be a "great benefit "to India generally that medical men should establish "themselves in private practice in the country in the "same way that they do in other parts of Her Majesty's "Empire." In August, 1907, the present Secretary of State, Lord Morley, called the attention of the Government of India to his predecessor's dispatch, and inquired what had been done and what was proposed to "promote the growth of an independent medical "profession in India." It may fairly be assumed that the two successive Secretaries of State had in mind the conditions which exist in Great Britain and in the Colonies, where the population is of European birth or race. The proposal would appear to be that doctors, European, Eurasian or Indian, with either European or Indian medical qualifications, should establish themselves in practice in the various cities, towns, and villages of India, and being available and willing to undertake Government work in addition to their private practice, should gradually replace the I.M.S. officer in civil employ.

It will be interesting to consider what are and have for many years past been the conditions relating to medical practice obtaining in India, for a considerable number of actual facts have very important bearings on the subject.

In the first place, it must be recognized that a very large proportion of the inhabitants of India have not yet been converted to the advantages of the Western system of medicine and surgery. They believe in their own systems, Hindu or Mohammedan, and when sick employ kobirajs, hakims, herbalists, and quack doctors of every kind, to say nothing of numbers of mere compounders or "failed" medical students, who use Western or native systems, as their patients prefer. The masses are very poor and cannot pay more than pence for medical treatment and drugs. European treatment is brought within the reach of a part of these masses by means of the thousands of State-supported dispensaries throughout the country and the numerous privately supported charitable hospitals and dispensaries. These institutions are staffed by native practitioners, assistant surgeons, or hospital assistants, educated at the Government colleges and schools, and all these men have the right to private practice amongst the classes who can afford to pay fees. The salaries paid to them by the Government are low, on account of this right to practise; but the monthly salary is secure, and they have the prospect of a pension. As a class they are not contented, because large numbers of them do not make much more than a living. Roughly speaking, it may be said that in every town or large village in British India, where an independent native medical practitioner might have a chance of making a bare living, there are State-supported native practitioners of this kind, and in most places a goodly number also of independent native practitioners of every kind.

The medical colleges and schools for the last fifty years have been turning out graduates and practitioners, some of whom enter Government service for the hospital and dispensary work mentioned above; but large numbers of them engage in independent medical practice in a way suited to the requirements of the country. To a very great extent, therefore, independent medical practitioners exist, and in some places they are even more numerous than is necessary to meet local wants.

In the Presidency cities of Calcutta, Bombay, and Madras, at some of the large hill stations and in some of the large up-country cities, possibly less than a dozen in number, there are independent medical practitioners—Europeans, Eurasians, Parsees, Hindoos, and Mohammedans—some of whom are very successful and make excellent incomes; but, if of European habits, they require considerable capital to start in a good way, or else introductory support from business firms. In the case of Europeans, partnerships are essential to secure long absence from work for recruitment of health, or to meet temporary incapacities from sickness.

The number of native medical practitioners holding British or Indian degrees and qualifications, in all the Presidency towns and in the large up-country towns is in fact so considerable that some I.M.S. officers of great experience are strongly of opinion that the supply of native practitioners of this superior class is in excess of the present wants of the country.

The measures for promoting the growth of an independent medical profession in India urged upon the Government of India by Lord Morley must, therefore, be taken to refer chiefly to what is called the "mofussil," that is to say, the whole country outside the three Presidency cities, and it will be well to consider what conditions obtain at present and what could be offered to independent practitioners to meet the views expressed by Lord Morley and those who have set the present agitation in motion.

A typical civil station, neither large nor small, may be taken as an illustration. There would be the usual half-dozen European civil officers and their families, the judge, the magistrate, the assistant magistrate, the district superintendent of police and his assistant, the district engineer and a few European and Eurasian subordinates; possibly also some Europeans not in

Government employ, but engaged in business. The adjacent native city may be one of from 5,000 to 40,000 or 50,000 inhabitants, mostly poor people. The medical staff will consist of the I.M.S. officer in civil charge, probably a captain on 400 to 500 rupees, or a major on 750 rupees a month, and a native assistant surgeon in charge of the local hospital on 100 to 200 rupees a month. In addition to the headquarter dispensary or hospital there will be varying numbers of outlying or district dispensaries in charge of hospital assistants.

The civil surgeon's duties are numerous and varied: (*a*) He has to attend, free of charge, all Government servants whose pay is above 200 rupees monthly; the assistant surgeon has similarly to attend all Government servants of lower grades. The families of officers other than military in military employ are not entitled to free attendance, but of late years local Governments have repeatedly tried to put the families of Government employees of certain subordinate departments on the free list. (*b*) All the medico-legal work of the district passes through his hands, and much of it is done by him personally. (*c*) He has medical charge of the police and recruitment for the police and other services. (*d*) He has charge of the vaccination work and of some of the sanitary work of the district. (*e*) He has also executive and medical charge of the district gaol, for which he draws a charge allowance of from 50 rupees to 100 rupees monthly. He is the sole European medical officer of the district, which may have a population of from a few hundred thousand up to a couple of millions, and have an area of a couple of thousand square miles. (*f*) He has to inspect four times yearly all outlying dispensaries, numbering anything from six to twenty-five or thirty. Some of these may be two or three days' journey distant from his head quarters. This duty alone represents some two or three months' absence from the head quarter station. How much of this work would an independent medical practitioner be willing to take and on what terms?

A district civil surgeon is a very hard-worked man, and at the present day in many districts the amount to be made by private practice is very small. It is difficult to see where the independent medical practitioner the Secretary of State proposes could find a place in such a locality with advantage to himself, to the State, or to the public. If he replaced the I.M.S. civil surgeon entirely he would have to be paid as high a salary and become a pensionable servant and be under control, ceasing to be independent. It is therefore, not surprising that the Government of India has already pointed out to the Secretary of State that the proposal gradually to reduce the civil side of the I.M.S., replacing it by the employment of civil medical practitioners, is not practicable because so large a proportion of the duties of officers of the Indian Medical Service on civil employ must be performed by Government services over which Government should have control on all points. Such control would not extend to independent medical practitioners merely doing some work for Government in addition to their private practice. It would not be possible for an independent medical practitioner to perform the duties of a civil surgeon in an up-country station as a mere addition to his private work. He might be given one or more of the additional appointments which carry extra allowances, but he certainly would not want any of the work which carried no pay, and there would have, in any case, to be a Government civil surgeon to perform all the many duties covered by the bare grade pay. As has already been pointed out, the Government has long recruited civil medical practitioners in India for civil work, and they form the large and efficient Assistant Surgeon Service (Subordinate Medical Service).

In the fourth paragraph of his dispatch the Secretary of State says that, if there are any particular posts requiring special qualifications for which European, Eurasian, or Indian medical men, whether trained in Europe or holding European degrees, cannot be found in India, candidates are to be sought for in England. This can only mean the formation of a supplementary small service recruited at home for special appointments. Such a service would have to be highly paid, with proper leave and pension rules, and a reserve for casualty. It is difficult, therefore, to see how this proposal of the Secretary of State can make either for economy or for the encouragement of Indian medical practitioners.

THE MEDICAL SERVICE OF THE WEST AFRICAN COLONIES.

THE questions raised by the report of the Departmental Committee appointed some eight months ago to consider the affairs of the West African Medical Staff, a summary of which was published in our last issue, p. 160, are of wide interest; but to appreciate the full import and importance of the report, the previous medical history of the West African Colonies must be borne in mind.

The West African Medical Staff is in many ways analogous to the Indian Medical Service, and since outside its ranks there are few qualified medical men in West Africa, its members have to fill for the colonies and vast protectorates there situate the parts played in the United Kingdom both by private medical practitioners and various medical services. It was formed primarily by welding together into one service all the medical employees of the various colonies, this consolidation being an outcome of a recognition of the immense importance of the part to be played by medicine in facilitating in all cases, and in some places rendering in any wise possible, the full development of the British possessions in West Africa from the point of view of commerce and civilization.

This change was made some six or seven years ago without full consideration and elaboration of the organization necessary to make such a service attractive or its members contented, and to secure for the colonies all the possible advantages of its existence. It is not surprising, therefore, that after a few years dissatisfaction arose. It found expression in letters to this JOURNAL, so numerous that after publishing a considerable number we summarized the rest and the situation as a whole in an article which appeared in January, 1908, and at the same time indicated the conclusions which a study of the question suggested.

The discontent was due to three principal causes: Financial questions counted for something, as in the matter of allowances there were unfair differences between the medical and other departments, but in this respect the chief factor was the very poor prospect of promotion. A second cause was a tendency among at least a considerable proportion of members of the "political" or administrative departments to treat the medical department and its views as of comparatively minor importance, and its members as liable to be employed at their will in a general capacity. By far the most important factor of all,

however, was a sense of the futility of effort. Besides being carefully selected as medical men, the members of the staff are required to undergo special training in the etiology of tropical diseases and their administrative control; but they found their knowledge as well as their energies to a considerable degree wasted. This was sometimes because the value of their suggestions was not appreciated, frequently because their work was upset by the amateur sanitarians who abound in the administrative departments of the local governments, but principally, perhaps, owing to a lack of any method of co-ordinating sanitary work. On the west coast, where a tour of service never lasts more than a year, no given individual can count on completing any task he undertakes, and when there is no machinery either for prescribing sanitary efforts that are to be made or for seeing that they are carried through by successive medical officers, it is inevitable that there should be a great deal of wasted work.

This was the general position of matters both at the time of the publication of the article mentioned and some ten months later, when, as the outcome of further representations from several sources, the Committee was appointed by the Secretary of State and commenced its work. It is also the situation at the present moment, and it will remain unchanged until effect has been given to the Committee's recommendations.

The Committee took a broad view of its duties, and, though its conclusions do not in every respect coincide with the desires expressed by past and present members of the West African Medical Staff, they are, nevertheless, likely to receive general approbation. They provide for an immediate improvement in the pay of such officers as have been for any time in the service, and for the betterment of the prospects of all, both by increasing the likelihood of promotion and by adding indirectly to the amount of pension which may eventually be secured. They will also go a considerable way towards adjusting the relations between medical and non-medical employees of the various Governments. Still more important, they suggest a very practical and comprehensive sanitary organization, and one which ought to ensure, not only that sanitary schemes are properly thought out, but that they shall be carried through. A medical officer who has the sanitary progress of his district at heart will be able to feel that if he cannot complete the work himself it will be completed by his successor, and that, except with the cognizance and authority of the Secretary of State, no scheme can be nipped in the bud by some lay official on the coast to whom, for one reason or another, it does not happen to appeal. If, in short, full effect is given both to the spirit and the letter of the Committee's recommendations, officers in the West African Medical Staff will be in a position to do full credit to themselves and the profession to which they belong, and the prospects of the various local governments succeeding in taking full advantage of the immense natural endowments of these West African colonies and protectorates will be greatly increased.

In considering the force of the recommendations in the report, it is important to remember that even as a departmental committee the body which made them was specially strong in officials. Three of them occupy important positions in the Colonial Office itself, a fourth is in the West African Service, a fifth an official of the Local Government Board, and only one an entirely independent individual — namely, Dr. Fowler, late Dean of the Medical Faculty of the University of London. At first sight, therefore, it would seem as if the fullest effect must be given to the report; but the success of the scheme still remains in the balance, since the Secretary of State, while approving of the report as a whole, has reserved his decision on some important details until he has had time to consult the various Governments concerned. While the sanitary organization recommended by the committee is satisfactory, it will not be practically efficient unless the Colonial Office Advisory Board, the creation of which is advocated, is a really live and active entity. The committee seems to have foreseen this when it deprecated the establishment of local sanitary boards, and for analogous reasons we regret that the idea of such boards should have been put forward to the Governors in the Secretary of State's dispatch. It is an essential part of the committee's scheme that the Advisory Board should, through the Secretary of State, be the final controller of sanitary work in West Africa, receiving the reports of the travelling sanitary officers and the comments thereon of the Principal Medical Officer and the Governor respectively, and basing its advice on these and its own expert knowledge. The interposition, therefore, of other bodies which would act as local advisory boards to the Governors is unnecessary. They seem also undesirable, since in most cases they would merely be the Governor's *alter ego*, and if he were a man who happened to be opposed in a general way to sanitary reforms they would be a powerful weapon in his hands.

It is also to be hoped that a rule making it possible to call upon an officer to retire at the end of nine years' service, irrespective of his conduct, will not be adopted. It would introduce a superfluous element of uncertainty into the prospects of all junior men, and be very inimical to the idea of encouraging officers to look upon service in the West Coast of Africa as a life career, a point to which the committee attaches much importance. There is no such rule in any other service, and it would probably be fatal to recruitment of men of the right class.

In view of the reservations of the Secretary of State on these points and in regard to the appointment of principal medical officers to executive and legislative councils, the outlook is perhaps not thoroughly reassuring. The publication of this very strong report is, however, a great gain in itself, and we are disposed to regard Lord Crewe's eventual acceptance of all its recommendations as certain, in spite of a certain subflavour perceptible in the tone of his dispatch to the Governors. This is of such a kind as to seem to indicate the existence among his counsellors of some not fully convinced of the desirability of developing the medical organization of West Africa to the fullest degree, and still imbued with the old-fashioned idea of complete decentralization and of treating Governors of Crown Colonies and their district deputies as the final arbiters of the fate of the areas in their charge.

THE BRITISH MEDICAL ASSOCIATION AND ITS MEMBERS.

THE JOURNAL contains this week two addresses upon the work which the British Medical Association is doing, and the still greater work it could do, for the profession, and on the sources of its strength and weakness. In the one, the address delivered by the President of the South Wales and Monmouthshire Branch, the subject is approached from the point of view of a

general practitioner who has had a long experience of contract practice in a manufacturing district and of the work of the British Medical Association; in the other, the Medical Secretary of the Association discusses the aspects of the matter which have impressed themselves upon one who has from the beginning been closely associated with the working of the new constitution. The British Medical Association has always been in conception and in intention democratic, and the reorganization of 1902 was designed to give the principle freer scope. Risks and defects attend every form of government designed by man, and the British Medical Association cannot expect immunity from those which attach to democracy. Chief among these are the apathy of some individuals and the tendency among others to make an abstraction of a form of government or association. The strength of a democratic institution lies partly in numbers, and partly in the zeal with which all the members work towards the common objects. The two addresses make in different ways, and from slightly different points of view, the same appeal to the whole profession to join the Association, and as members to take each his individual share in its work. Both addresses give examples of what has been done and may be done, and neither blinks the fact that the tasks before us are difficult, and that the difficulties are enormously increased by our want of union, unanimity, and discipline. Dr. D. J. Williams refers more particularly to the evils of contract practice and their remedy, with a plea, if we mistake not, for the cultivation of a tolerant spirit in the adjustment of intraprofessional differences of opinion. Dr. Smith Whitaker, after illustrating the need for union by a reference to recent incidents within the area of the new Wakefield Division, appealed to its members, and through them to the profession at large, to make use of the machinery provided by the Association for studying the reports of the Royal Commission on the Poor Laws and the Relief of Distress, so as to arrive at a settled policy with regard to the many and somewhat conflicting suggestions therein made on matters nearly affecting the interests—social, economic, and scientific—of the medical profession in Great Britain. The problem in Ireland is a little different, but there also questions of the same order have arisen which urgently call for a unanimous expression of carefully considered opinions.

THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

It may be said with confidence that the election of Mr. Butlin to the high office of President of the Royal College of Surgeons of England has been universally recognized as a well deserved honour paid to a man who has done much to enlarge the realm of surgery in various directions. To him we owe great improvements in the surgical treatment of malignant disease, especially of the tongue and of the larynx. On these subjects there is no higher authority living. Mr. Butlin has had considerable experience in administration and the conduct of affairs. He is intimately acquainted with the business of his college, and he held the office of Treasurer of the British Medical Association for two consecutive terms. How ably he acquitted himself in a position requiring judgement and tact is writ large in the records of the Association. Mr. Butlin will not merely fill worthily the chair to which he has been called, but will adorn it by his eminence as a scientific surgeon and by the dignity of his personal character. He need not fear comparison with any of his predecessors in office, distinguished as many of them have been. It may be interesting to point out that Mr. Butlin is the fifty-seventh President of the College. The first was John Hunter's brother-in-law, Sir Everard Home, who was elected in 1821. Sir Astley Cooper was twice President; from the date of his first election in 1827 a system of rotation seems to have been in force. This was abandoned in 1863, after which no President held office for more than one year till 1885. Then Sir William Savory was President for four years, and later Mr. Thomas Bryant held office for three years, Mr. J. W. Hulke and Mr. Christopher Heath each for two years, Sir William MacCormac for five, Sir H. G. Howse for two, Sir John Tweedy for three, and Sir Henry Morris for four years.

THE DISINFECTION OF BOOKS.

Xylander (*Arbeit. aus d. kaiserlichen Gesundheitsamte*, vol. xxix, Part II, 1908) has conducted experiments with the view of finding the best way of disinfecting books. Schumburg had found that while air at 100° C. containing 80 per cent. of water killed vegetative forms of bacteria, it did not destroy leather. Ballner found that bacteria dried on rags and placed inside books were killed in four hours by air at 95° C. containing 40 per cent. of water; while if the degree of saturation was increased to 60 per cent., the disinfection was complete in three hours. With the object of ascertaining conditions most efficacious for disinfection of parcels of books Xylander impregnated pieces of filter paper with various vegetative bacteria; they were placed between the pages of the books, which were exposed to the heated air either singly or piled up on or next to one another. Air at 95° C., charged to the extent of 20 per cent. saturation with moisture, killed staphylococci and tubercle bacilli in sputum dried on silk threads in two hours, while *B. coli*, *B. typhosus*, *B. paratyphosus*, *B. enteritidis*, and streptococci were killed in from forty-five to seventy minutes. Diptheria bacilli were killed after thirty minutes. When the moisture corresponded to 60 per cent. of saturation, all the bacteria were killed within ten minutes, and many within two minutes. Using 60 per cent. moisture saturation and a temperature of 95° C., the bacteria in a single book distributed between various pages and placed some toward the back, others in the middle, and others toward the front of the book, were not killed until after four hours had elapsed. With packets of books the time depended on the size of the packet. The temperature in the inside of books forming large packets rose very slowly, and under the conditions of the apparatus employed did not reach 95° C. within twenty-four hours. In all these experiments the only effect of the process was a slight yellowing of the paper and a tendency to curling of the cover. With 80° C. and 7.8 per cent. moisture, all bacteria tested were killed within twenty-four hours in a single book and in packets in thirty-two hours. As to formaldehyde, he found that a strong concentration of formaldehyde vapour did not work more rapidly than a weak, and therefore kept to 10 per cent. formaldehyde solution in 30 c.cm. of water, and worked out the best degree of moisture for the disinfection. With from 20 per cent. to 40 per cent. of moisture saturation, sterility was obtained in twenty-four hours. When formaldehyde was used the time of disinfection depended on the size of the parcel of books and on the relative moisture and temperature. As in the other experiments, the temperature inside the books always remained below that in the apparatus. When formaldehyde was evaporated with water *in vacuo* at low temperatures—for example, with a vacuum of 450 mm. of Hg, and formaldehyde solution saturating at 70° C., even

anthrax spores were killed in two hours, but only if the vapour could reach the pages of the books; no action occurred when the books were tightly packed together. His conclusion is that for the disinfection of books hot air is better than formaldehyde and aqueous vapour *in vacuo*. Both methods rest on scientific foundation, but further research is needed before the best method of disinfecting books can be determined.

NURSES' REGISTRATION.

MR. SYDNEY HOLLAND, who read a paper in opposition to State registration of nurses at the International Congress of Nurses this week, expressed his regret at the differences of opinion on the subject; but he was, we think, inclined to exaggerate their extent and prevalence. The opposition to the movement, such as it is, is voiced chiefly by himself, and but for his persistence there would probably by this time be entire unanimity on the subject. It is true that he has been indirectly connected with nurses for a good many years past, and we have no doubt of his genuine devotion to what he regards as the interest of nurses; but, after all, he is only acquainted with one side of the question, and it cannot be forgotten that a good many training schools such as that which he represents have perhaps something to lose by the introduction of registration. On the other hand, there is no reason to suppose that they know any more about the subject than do those who desire to see registration introduced; and resolutions to that effect have been passed over and over again by the British Medical Association, a body composed of men thoroughly acquainted with all sides of the subject, and with the difficulties which the present condition of affairs creates. They regard it as fair to nurses that that status should be conferred upon them, and believe that it would be accompanied by great advantages to the public. A special committee of the House of Commons has taken the same view after a prolonged inquiry, at which full weight was given to the views expressed by Mr. Sydney Holland and his colleagues in the matter. It is perfectly true, of course, that a registered nurse will not necessarily be a perfect nurse, but, at least, medical men and the public alike will have some kind of knowledge of the persons who offer themselves for employment. They will know that a nurse who is registered has been educated in nursing matters up to a certain standard, and is not a woman of no education whatever. Furthermore, a machinery will have been created by which nurses unfit for their occupation will eventually be winnowed out. The opponents of registration continually argue that not only knowledge, but capacity, is necessary to make a good nurse, but though this is perfectly true, it is not a characteristic of nursing only. It is a feature common to practically every recognized occupation in the world; but as regards nurses it is at present difficult not merely to find out whether a nurse is a good nurse, but even whether she is a nurse at all.

ROYAL APPETITES.

READERS of *Sartor Resartus* will remember the epitaph on Count Zaehdarm, who, it is recorded, while he lived, *varii cibi centumpondia millies centena millia . . . in stercus palam convertit.* This digestive achievement has been paralleled or surpassed by many sovereigns. Whether they reign by divine right or by the will of the people, providence would seem to have endowed royal personages with appetites in proportion to their exalted position. According to Motley, Charles V was an enormous eater. "He breakfasted at 5, on a fowl seethed in "milk and dressed with sugar and spices. After this "he went to sleep again. He dined at 12, partaking "always of twenty dishes. He supped twice—first "soon after vespers, and the second time at midnight "or 1 o'clock, which meal was perhaps the most "solid of the four. After meat he ate a great "quantity of pastry and sweetmeats, and he irri-"gated every repast by vast draughts of beer "and wine." Roger Ascham "standing hard by the "Imperial table at the feast of the Golden Fleece" watched with wonder the emperor's steady progress through "sod beef, roast mutton, baked hare," after which "he fed well of a capon." Ascham adds that Charles drank "the best that ever I saw; he had his "head in the glass five times as long as any of them, "and never drank less than a good quart at once of "Rhenish wine." Naturally the Nemesis of gout and dyspepsia overtook him. But, says Sir William Stirling, even in his worst days of suffering from these diseases, before setting out for Flanders, the fullness and frequency of the meals which occurred between his spiced milk in the morning and his heavy supper at night, so amazed an envoy of Venice that he thought them worthy of special notice in a dispatch to the Senate of his Republic. In his cloister life, eating was the only physical gratification which the Emperor could still enjoy. To the last he continued to dine on rich dishes, and the supply of his table was the main subject of the correspondence between the majordomo and the Secretary of State. Spain and Portugal were ransacked for fish, partridges, sausages, and other dainties to please the worn-out palate of the Emperor. Presents of game, venison, beef, veal, and other provisions were showered upon Charles in his retreat by those who knew that the nearest way to his heart was through his stomach. His faithful attendant, Luis Quixada, saw with dismay the long files of mules laden as it were with bile and gout. The Renascence introduced Italian cooks and pastry into France, and the banquets of Henri III recall those of Heliogabalus. It is related that at one of them, Catherine de' Medici, the Queen Mother, ate so much that she was ill almost unto death. Louis XIV had a truly kingly appetite. He often took at one meal, four platefuls of different soups, a pheasant, a partridge, a large plateful of salad, two large slices of ham, mutton stewed in garlic, a plateful of pastry, fruits, and hard-boiled eggs. It is no wonder that the *Journal de la Santé du Roi*, a diary kept by his physicians till within a few years of his death, is a long record of indigestion, intestinal storms, and attacks of gout, with constant physicking, clysters, and bleeding. Fagon succeeded in getting the King to submit to dieting, but even then he would eat, in addition to toast and pigeon soup, three roast chickens. The Bourbons were nearly all mighty trenchermen. In our own day there are, or were, royal personages worthy to feast with Charles V. In *An Onlooker's Notebook*, attributed to Mr. G. W. E. Russell, which appeared some years ago, there is the following passage: "An Illustrious Couple arranged to pay a "two-nights' visit at a country house of which the "owners were friends of mine. For reasons of "expediency we will call the visitors the Duke and "Duchess, though that was not their precise rank. "When a thousand preparations too elaborate to be "described here had been made for the due entertain-"ment of them and their suite and their servants, the "Private Secretary wrote to the lady of the house "enclosing a written memorandum of his master's and "mistress's requirements in the way of meals. . . . "The day began with cups of tea brought to the bed-"room. While the Duke was dressing, an egg beaten "up with sherry was served to him, not once but

"twice. The Duke and Duchess breakfasted together "in their private sitting room, where the usual "English breakfast was provided. They had "their luncheon with their hosts and the house "party, and ate and drank like other people. "Particular instructions were given that at 5 o'clock "there must be something substantial in the way of "eggs, sandwiches, or potted meat, and this meal the "illustrious couple consumed with special gusto. "Dinner was at 8.30 on the limited and abbreviated "scale, which has superseded the hecatombs of "Francatelli. But let no one suppose that the "Illustrious Ones went hungry to bed. When they "retired supper was brought up to them in their "private sitting room, and a cold chicken and a bottle "of claret were left in their bedroom as a provision "against emergencies." Constitutional monarchs may be gluttons without much harm to any but themselves. But it would be interesting to trace the connexion between dyspepsia and despotism, between gout and misgovernment, in the case of arbitrary sovereigns.

THE ETIOLOGY OF YELLOW FEVER.

THE history of the work done in connexion with yellow fever since 1899 is one of the most interesting pages in the history of medicine. Dr. Finlay's suggestion, made many years earlier, that the contagion of this disease is transmitted through a mosquito, laid the foundation of the etiological knowledge now possessed. Although the disease has been mastered from the point of view of epidemiology in a veritable hotbed, by precautionary measures against the intermediary host of the unknown invader, it is still highly desirable that the parasite should be isolated, for a careful study of its life-history, the phases of growth and development through which it passes when lodged in the stomach of the *Stegomyia culex*, and of the conditions under which it cannot live would be very useful. Dr. Harald Seidelin, Professor of Pathology and Bacteriology in the Medical School at Merida and Director of the Laboratories of the Hospital at O'Horan in Mexico, believes that he has been able to identify the parasite.[1] Having a large number of yellow fever patients at his disposal, he made numerous observations on their blood. The parasites appear as red blood corpuscle inclusions. They were seen in blood smears stained by Giemsa's method. Drawings of the various types are reproduced in his article. The structures present multiple dark points, which take up the chromatin stains, and a protoplasm; the less deeply-stained portions stain pale blue. The colour of the chromatin, he states, is rather more violet than that of malaria parasites, and compares with the centrosomes of rat trypanosomes. In a single case he was able to see an extra-globular crescentic structure, totally unlike the malaria crescent, and in respect to this form he expresses himself with reserve. The forms are either ring or amoeboid and vary considerably in size. The structures were found in nearly every case examined, save when the blood was taken at a later epoch in the disease. In discussing the probability of these structures being the specific parasites of yellow fever, he states that although he has made a very large number of blood examinations he has never seen them in the blood of a person not suffering from yellow fever. Against the hypothesis that they might be degeneration products of some artificial structures are the facts that they show a very characteristic staining, that they are intra-globular, and that they have well marked chromatin. He was able to exclude the suggestion that they might be forms of malaria plasmodium, as some of his patients had neither had an attack of malaria nor had come into contact with malaria patients. In none of his cases was there any splenic enlargement, nor did quinine do any good. He is inclined to classify the parasites among the *Piroplasmata*. This is the story told by Dr. Seidelin. At present it is obviously impossible to form any opinion as to the probable specificity of the parasites, since careful examination of the blood of yellow fever patients is the only method of solving the problem. The pictures lead to provisional acceptance of the view that the structures are parasites; but here again reserve is necessary, since the pictures are reproductions of drawings made from specimens. Furthermore, it will be necessary to demonstrate the presence of the parasite in the *Stegomyia* before its specific nature can be admitted.

[1] *Berl. klin. Woch.*, May 3rd, 1909.

RADIOGRAPHY AND URETERAL CALCULI.

THE resources of science may deceive even the greatest experts working under the most favourable conditions. This truth has been recently demonstrated by the publication of a remarkable case in Professor Pozzi's wards in the Hôpital Broca, Paris,[1] and MM. Proust and Infroit deserve much credit for having made the facts known. A very sickly woman, with a cold abscess in the subcutaneous tissues of the thorax, was admitted into hospital for pains in the lumbar region and frequent micturition. The urine was turbid and sometimes bloodstained; at first there had not been any distinct attacks of renal colic, but they had appeared and become frequent during the three months preceding admission. By the aid of radiography M. Infroit detected a spot corresponding to the course of the right ureter a little above its termination in the bladder. Dr. Luys used the cystoscope and his now famous segregator, and found evidence of chronic cystitis and great dilatation of the orifice of the right ureter, whence issued urine mixed with pus. The orifice of the left ureter was normal, and the urine which came through it was free from pus. Right pyonephrosis and calculus in the ureter were diagnosed. Proust and Salin performed nephrotomy so as to render the patient less septic before operating for removal of the calculus. The usual lumbar incision was made, but the kidney was so adherent that it could not be drawn well out of the wound for thorough exploration. Its convex border was incised, pus escaped in moderate quantities, but no calculi could be found. The kidney was drained, and the patient's health improved for a time, then she grew worse, and died at the end of the eleventh week after the nephrotomy. At the necropsy the right ureter was found to be dilated to about one-third of an inch in breadth. It was surrounded, 2 in. above its entry into the bladder, by dense inflamed tissue. The *x* rays were used once more, and two little spots were then seen lying in the sclerosed and hypertrophied sheath of the ureter, and corresponding in situation to the single spot detected by radiography during the patient's life. After some more very careful dissection, catheterism of the ureter and repeated use of the *x* rays, the spots were found to indicate the position of two small phleboliths which lay in the lumen of a vein in the sheath of the ureter. It is pleasing to find men of recognized talent putting themselves to so much trouble to point out how even they may be misled by new methods supposed to ensure precision in clinical research and diagnosis. Our readers must remember Dr. Mackenzie Davidson's remarkable

[1] Proust et Infroit. "Phlebolithes des veines péri-urétérales, simulant à la radiographie l'existence d'un calcul de l'uretère." *Bulletins et mém. de la Soc. Anatom. de Paris*, April, 1909, p. 242.

report on the diagnostic value of *x* rays,[2] read at the Leicester Meeting of the Association, and illustrated by fine skiagrams. We may turn special attention to Case v in Dr. Davidson's series, which showed the importance of caution on the part of surgeons, and the advisability of careful consultation with colleagues who devote their time specially to *x*-ray work. In the other cases of suspected presence of calculi in the ureter the diagnosis made by aid of the rays was confirmed by skilful operative procedures.

LEBANON HOSPITAL FOR THE INSANE.

THE eleventh annual report of the General Committee of the Lebanon Hospital for the Insane at Asfûriyeh, near Beirut, Syria, has recently been issued. The report, which is illustrated by photographs and maps, contains also the report of the annual general meeting, held in London last May; a description of the present state of the hospital by the founder, Mr. T. Waldmeier, and the report of the medical superintendent. The main facts concerning the excellent philanthropic work done at Asfûriyeh are already widely known. It may be recalled, however, that some years back, Mr. Waldmeier—urged by pity for the unfortunate insane at Lebanon, then treated by priestly exorcism with its accompaniments of branding and chaining—journeyed to Europe and America begging help. Though then over 70 years of age his labours were successful, and the asylum was built. It must be a source of gratification to all concerned that the venerable founder, eight years after the opening of the asylum, during which time eight hundred patients have been treated, is still able to direct its fortunes. The asylum is mainly supported by voluntary contributions from Great Britain, Holland, Switzerland, and America, collected and transmitted through local committees. We are glad to learn, however, that paying patients increase in number. Of Christian foundation, it ministers not only to members of the Eastern and Western Churches, including Maronites, but to Druses, Anzeyries, and Moslems. The only institution of its kind in the Turkish Empire between Cairo and Constantinople, it spreads the ameliorating influences of modern medical science and humanitarian zeal, not only among those dwelling in its neighbourhood, but to far-distant countries, by travellers along the trade routes to Damascus and Baghdad, and even along the Haj road from Damascus to Mecca. Dr. Thwaites, the late medical superintendent, left the asylum in February, 1908, and the present medical superintendent (Dr. Watson Smith) only assumed office in February of this year. In the interval the institution was placed in the medical charge of Dr. Anton Saleh, a native medical man, who has compiled the statistics for the year April, 1908, to April, 1909. From these we see that on April 1st, 1908, there were 75 patients in the institution, the same number remaining on the corresponding day of this year. During the year 122 were admitted, of whom 4 were readmissions during the year. In all, 197 were under treatment during the twelve months. Of the total admissions, 26 were Maronites, 34 belonged to the Orthodox Greek Church, 8 were Roman Catholics, 19 Moslems, 14 Jews, and 6 Protestants. They were classified, according to the forms of mental disorder, into: Mania of all kinds, 31; acute and chronic melancholia, 24; senile dementia, 3; primary dementia and precocious dementia, 19; general paralysis, 4; monomania, 4; hysterical insanity, 7; epileptic insanity, congenital insanity, aphasia and puerperal insanity, 2 each; dipsomania and hashishism, 1 each; not insane, 3; 18 remaining unclassified. During the year 26 were discharged as recovered, giving a recovery-rate on the total admissions of 21.3 per cent.; 26 also as improved, and 60 as not improved. Also 7 died during the year, the deaths being due in 3 to nervous exhaustion, in 2 to apoplexy, and in 1 each to heart disease and diarrhoea. To those who would know more of this most deserving institution copies of the report will be sent on application to the Secretary, Miss A. M. Gooch, 35, Queen Victoria Street, E.C.

[2] BRITISH MEDICAL JOURNAL, January 20th, 1906, p. 137.

SCOTTISH ARCTIC EXPEDITION.

REFERENCE was made in a previous number of the JOURNAL to the fitting out of another Arctic expedition. The steam yacht *Conqueror* left Leith on the 19th inst. for the Arctic regions, her destination being Spitzbergen and adjacent seas. The scientific side of the expedition has been organized by Dr. W. S. Bruce, the object of which is to continue the topographical survey of Prince Charles Foreland and adjacent lands. This work will be under the supervision of Mr. John Matheson, of the Ordnance Survey of Scotland, assisted by Mr. Ernest A. Miller. Dr. Rudmore Brown, University of Sheffield, formerly of the Scottish National Antarctic Expedition, will carry out topographical, botanical, and other researches in the Foreland and elsewhere. Mr. J. V. Burn Murdoch and Mr. H. Hannay will conduct geological investigations. The crew and members of the shore party have been very specially selected, and satisfactory results may with confidence be anticipated. It may be of interest to note that the whole expedition has been fitted out in Leith and Edinburgh. The Admiralty, Royal Observatory, Scotland, and National Physical Laboratory have supplied a large number of instruments. The Scottish Oceanographical Laboratory has also lent a very complete set of oceanographical instruments and equipment.

THE UNIVERSITY OF BRISTOL.

AT the first meeting of the council of the University of Bristol, Mr. Lewis Fry was elected chairman. Dr. Lloyd Morgan tendered his resignation of the office of vice-chancellor, and Sir Isambard Owen, Principal of Armstrong College, Newcastle-on-Tyne, was elected in his place. The council placed on record its sense of the distinguished services rendered by Professor Lloyd Morgan to the cause of university education during the twenty-two years of his tenure of office as principal of University College, Bristol, and its hearty acknowledgement of the unsparing manner in which he had devoted his time and influence to the promotion of the scheme for the foundation of the University of Bristol. Sir Isambard Owen, who as Vice-Chancellor will be principal of the new university, will take up his duties on September 9th. He is also the senior deputy chancellor of the University of Wales, and the question has been raised whether his appointment at Bristol is compatible with the continuance of his official connexion with the University of Wales. He has himself stated that the new appointment need involve no change in his relation to the University of Wales. Sir Isambard Owen played an important part in the negotiations which led to the foundation of the university; he has ever since taken an active share in its administration, and the help of his knowledge, experience, and enthusiasm in the cause of higher education could ill be spared.

MR. BERNARD MALLET, Commissioner of Inland Revenue and Controller of Stamps, has been appointed Registrar-General for England and Wales in the room of Sir W. C. Dunbar, Bart.

Dr. Frederick Taylor has been elected Chairman of the Committee of Medical Members of the Senate of the University of London.

Professor Harvey Cushing will deliver the fifth William Mitchell Banks Lecture at the University of Liverpool on Wednesday, August 4th, at 4 p.m. The subject selected is Recent Observations on the Pathology and Surgical Treatment of Intracranial Tumours.

Mr. Alexis Thomson, Assistant Surgeon to the Royal Infirmary, Edinburgh, Surgeon to the Deaconess's Hospital, and Lecturer in Surgery in the School of Medicine, Edinburgh, was, on July 21st, appointed by the Curators of Patronage Professor of Surgery in the University of Edinburgh in succession to Professor John Chiene, C.B. There were five other candidates.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

Post Office Medical Officers.—Sir William Collins asked the Postmaster-General whether, in connexion with the employment of postmen on cycling duties, any additional duties in regard to medical examinations of postmen to be so employed had been placed upon medical officers; and if he would state what regulations the Post Office had laid down in regard to such examinations. Mr. Buxton replied that it had for some time past been a part of the duty of Post Office medical officers to examine postmen about to be employed on cycling duty. He had recently seen cause to extend this examination to men already employed on cycling duty, and to cause it to be repeated at intervals of four years. In order to ensure a searching and complete examination a list of questions had been compiled for the use of medical officers indicating those points which were of importance in the interest of the staff and of the public service.

The Royal College of Surgeons and the Admission of Women.—Dr. Rutherford asked the Secretary of State for the Home Department whether, in view of the fact that the Royal College of Surgeons was unable through the provisions of the Medical Act of 1876 to confer the rights and privileges of the college to women who are admitted to its diplomas, he proposed to grant a new charter to the college. Mr. Gladstone replied that he had no power to take any such action. He understood that a supplementary charter for the Royal College could only be granted by the Crown on the petition of the governing body.

Death in Poplar Workhouse.—Mr. Cochrane and Mr. Summerbell asked the President of the Local Government Board whether he had now received a report of the inquiry regarding the circumstances attending the death of Diana Green, who was found dead under a bed in Poplar Workhouse, with four ribs and one arm broken, on June 18th; and whether he could communicate the results of that inquiry. Mr. Burns said that he had received from the guardians a copy of the report made to them by the Visiting Committee after their investigation of the case referred to. The committee appeared to have taken all the evidence available, but unfortunately the medical officer of the workhouse was seriously ill, and hence they were unable to examine him. They reported that they had given very careful consideration to the depositions at the inquest, the report of the master of the workhouse, and the statements of the officers and inmates examined by them, but that they had been unable to elicit any material facts in addition to those contained in the depositions and the master's report. They were of opinion that, until the medical officer was in a condition to be further examined, it would not be possible to come to any definite conclusion as to the cause of the injuries to the deceased. He had requested to be informed when the medical officer had sufficiently recovered to give evidence, and had promised, in compliance with a request to that effect, that the Local Government Board's senior medical inspector for Poor Law purposes should assist at any further investigation then held.

Fees for Vaccination Exemption Certificates.—Mr. Tyson Wilson asked the Home Secretary whether, in view of the fact that some justices of the peace charged a fee for signing an exemption from vaccination certificate, he would issue a circular informing magistrates that they were not justified in charging a fee unless the services of the justices' clerk were utilized. Mr. Gladstone replied that, if the hon. member would inform him of any cases in which justices had charged a fee for anything done by them in their magisterial capacity, he would communicate with them. He did not, however, think that a general circular was called for, as he had no doubt that justices generally were properly informed on this subject.

Dismissals of Scottish Poor Law Medical Officers.—Mr. Cathcart Wason asked the Lord Advocate whether he would grant the return asked for with reference to dismissals of Poor Law medical officers in Scotland, and the trouble thereby entailed on the poor. The Lord Advocate replied that if his hon. friend would move for a return showing in how many and what parishes during the past three years Poor Law medical officers in Scotland had vacated office and what period in each case had elapsed before the appointments had been permanently refilled, the Government would offer no opposition.

Dairies and Cowsheds Act (Ireland).—Mr. Lundon asked the Chief Secretary if, in view of the fact that the majority of the district councils of Ireland had refused to put the Dairies and Cowsheds Act into operation on the grounds that it was unnecessary and only creating additional taxation, the Local Government Board would withdraw legal proceedings which had been threatened against some such councils, and make the Order, heretofore compulsory, an optional one. Mr. Birrell said he understood that only a very small minority of the district councils in Ireland had refused to put the Order in question into operation. Officers had already been appointed for nearly half the districts in the country, and additions were steadily being made to their numbers. Compulsory action had only been taken by the Local Government Board with respect to districts which were recognized as large milk producing areas, and in which the conditions attaching to the production of the public milk supply had been found on inspection to be unsatisfactory. The Board, therefore, saw no reason whatever to withdraw legal proceedings as suggested. In the interests of public health it was necessary that every step should be taken to ensure that the Order should come into operation throughout the country.

Indian Medical Service.—Mr. Rees asked the Under Secretary for India whether the Government of India (Home Department), Notification No. 607, of July 1st, 1907, regarding the receipt of fees by officers of the Indian Medical Service for professional services rendered to Indian nobles or gentlemen and their families or dependents in British India, was still in force, and if so, whether it had received the necessary confirmation of the Secretary of State, in anticipation of which the Order was issued nearly two years ago; whether he was aware that the Order had caused dissatisfaction in India amongst the officers of the Indian Medical Service; and whether his attention had been called to the spirit of the Regulating Act of 1773 (13 Geo. III, c. 63, Art. 25), by which the right to take or accept fees, gratuities, and rewards in the way of their profession was specially reserved to medical officers. The Under Secretary replied that the Secretary of State was still in correspondence with the Government of India regarding the notification referred to in the question, which had not yet received his confirmation. He was not prepared at present to make any statement on the subject.

The Metropolitan Ambulances Bill was read a second time and committed on Thursday in last week.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

ARGYLL SANATORIUM AT OBAN.

A SANATORIUM for the treatment of phthisis, the gift of Mr. and Mrs. Bullough, was opened at Oban on July 13th. The offer to build and equip a sanatorium for the county was made through Dr. McNeill, M.O.H. for the county, in 1906, but, owing to the difficulties in procuring a suitable site, the donors purchased the estate of Benvoulin, and erected thereon a sanatorium. The estate, which is about nine acres in extent, is situated within the extended boundary of Oban, about 400 ft. above the sea level; it commands a view of some of the most beautiful scenery, for which the West Highlands of Scotland is so deservedly renowned. The grounds are planted with shrubs, and trees, principally pines, and are traversed by numerous well-kept paths; there is a vegetable and fruit garden, and several hot-houses. The buildings consist of the mansion house, with large greenhouse attached, which has been converted into an administrative block. The new buildings comprise a large block, of the butterfly design, containing two wards and sitting-room; there is a one-story building, with flat roof, containing two bedrooms and shelters for patients; a second one-story block, with a verandah in front running its whole length, and containing four single-bedded rooms and sitting-room for private patients; and a third block, also one story high, with artistic verandah, for special cases. The buildings were designed by Mr. Neil Gillies, architect. There are two entrance lodges, one at each end of the property. The buildings are all fitted and furnished in the most modern and scientific manner.

PROFESSOR CLELAND'S VALEDICTORY ADDRESS.

The summer graduation in medicine took place at Glasgow University on July 13th. As this was the last occasion on which Professor Cleland would have an opportunity of addressing the graduates, he was heartily applauded when he rose to make a few valedictory remarks on the eve of his retirement. His address was directed mainly to the position the medical man held in society, and emphasized the fact that the physician's and surgeon's art was a noble profession, but noble only when nobility became nobility of purpose. Nobility of purpose was the most effective stimulant to study as well as to the performance of duty at the bedside, and it ennobled the whole acquisition of knowledge of every description. Discussing the sources of error, he said errors of all sorts might arise when there was neither ignorance nor unworthy inclination, but simply from want of strength of purpose. All men were not capable of exhibiting equal force of character. Resolution was a quality which, like every other feature, was largely dependent on heredity, and heredity was not of their own making. It was an unearned increment, though he was almost afraid to say so, lest a tax be levied on it.

SCOTTISH NURSES' ASSOCIATION.

A preliminary meeting of nurses was held recently in Glasgow for the purpose of considering whether, in view of the three bills now before Parliament, Scottish nurses should not organize themselves in their own interests. A provisional committee was appointed to draw up suggestions. This committee summoned a meeting which was well attended by nurses and medical men, and at which it was decided to form the Scottish Nurses' Association. The objects of the association are to obtain State registration of nurses by a single-portal system for the United Kingdom, and extend it, if possible, throughout the British empire, the nurses to be admitted to the register after three years' regulated training in recognized hospital schools, and after having passed a State examination conducted under the auspices of a suitable board at suitable centres. The association will seek to raise and regulate the standards of education and training of nurses.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

New Convalescent Home.

The new Convalescent Home erected on the site of Muirfield House, Gullane, was formally opened on Saturday afternoon, July 17th, the Chairman of the Directors (Mr. James Clark, K.C.), presiding. It contains provision for the nursing staff, and accommodation for twenty-four convalescent children. The chairman traced the history of the steps for securing the Home, referring to the bequest of the late Miss Meikleham of the residue of her estate, and to the contribution of £13,000 by the public. Mr. Harold J. Stiles, M.B., F.R.C.S.E., moved a vote of thanks to the chairman, and spoke of the vast help the Home would be in the treatment, often prolonged, of cases of tuberculous disease of bone and joints. They would now be able to save a greater number of lives, and to cure a certain number of children, making them useful members of society, instead of leaving them helpless cripples. The staff of the hospital was grateful to the directors for the liberal way they had met its views in regard to what the Convalescent Home should be.

Mrs. Maconochie was presented with a gold key by the chairman, and with it opened one of the doors of the new Home, declaring as she did so that she was certain she had opened the door to health and happiness for many children.

LEITH DISPENSARY ABUSES.

Fortunately hospital abuse is relatively uncommon in Scotland, but the chairman of the Leith Hospital, at a meeting on July 15th, remarked that the directors had a growing conviction that a large number of people got the benefit of the dispensary who might be able, without much strain to themselves, to pay for medicines and for such attendance as was required. The committee recommended that they should adopt a more stringent method of ascertaining whether the cases were really necessitous or not, and thought it quite possible to frame such a series of questions as would show the real facts of the applicant's position.

At the same meeting of directors it was reported that Dr. William Elder, senior visiting physician, would retire on July 19th. In his place Dr. H. G. Langwill was appointed senior physician, and Dr. John Eason will be appointed full physician in charge of wards.

REPORT OF THE DEPARTMENTAL COMMITTEE ON INEBRIATES.

The report has just been issued of the Departmental Committee appointed by the Secretary for Scotland to inquire into the operation in Scotland of the law relating to inebriates and their detention in reformatories and retreats. The Committee communicated with town, parish, and county councils, and examined a large number of witnesses, and found that public opinion seemed ripe for the adoption of methods which formerly were held by many to invade unduly the liberty of the individual.

The Committee makes a number of important recommendations for the amendment of the existing Acts.

Definition.

1. It suggests that the term "inebriate" be substituted for that of "habitual drunkard," and be defined as follows:

An inebriate is a person who habitually takes or uses any intoxicant or narcotic, and while under the influence of such, or in consequence of the effects thereof, is

(*a*) At times dangerous to himself or any other person; or
(*b*) At times incapable of managing himself or his affairs; or
(*c*) At times a cause of harm or serious annoyance to his family or to any other person; or
(*d*) Unfit to have the care of any child of which he is the parent.

Retreats.

2. That the power to license retreats should be in the hands of the Secretary for Scotland, and that all licensed retreats should be subject to such inspection as shall be directed by the Secretary for Scotland.

3. That it should not be lawful for any person for payment to board and lodge in an unlicensed house more than one inebriate at the same time.

4. That the power to order the discharge of an inmate from a retreat should be in the hands of the Secretary fo Scotland. No order for the discharge of an inmate from a retreat before the expiration of the period for which he is signed or has been committed should be made unless fourteen days' previous notice of the hearing of the application has been given to all the persons interested.

Guardianship.

5. That power be given to a relative, friend, or guardian, or other person having an interest, and to the procurator-fiscal, to petition the sheriff for an order of guardianship, or for the committal to a retreat of an alleged inebriate. The procedure in the petition should be carried through by any of the persons above mentioned, or by the procurator-fiscal, who, on a prima facie case being made out to him, should be required to bring the case before the court. When the petition is presented by any person other than the procurator-fiscal, it should be supported by a written declaration, signed by the petitioner himself and one other person, to the effect that the alleged inebriate is a person to whom the Act applies. The sheriff should dispose of the petition summarily in camera, unless he otherwise determine, and, if he is satisfied with the evidence taken before him, which need not necessarily include a medical certificate, that the alleged inebriate is an inebriate within the meaning of the Act, he should have power alternatively:

(*a*) To make an order placing the inebriate under guardianship for a period of one year; or

(*b*) To commit the inebriate to a retreat for a period not exceeding six months, and thereafter for a further period under guardianship for a year.

In the event of any of the conditions of guardianship ordered in terms of subsection (*a*) above being broken by the inebriate, the sheriff should have power, on the report of the guardian, or, failing him, the original petitioner, to commit the inebriate to a retreat for a period not exceeding six months, with a further period under guardianship for one year. In the event of a breach of the conditions of guardianship subsequent to detention in a retreat, the sheriff should have power, on the report of the guardian, or, failing him, the original petitioner, to commit the inebriate to a retreat for a period not exceeding three years.

6. The Secretary for Scotland should have power to prescribe from time to time the conditions of guardianship and to approve of their modifications in individual cases. Power should be given to the sheriff when placing a person under guardianship to apply to his case the provisions of Section 72 of the Licensing (Scotland) Act of 1903 relating to the purchase and obtaining of excisable liquors, and the selling or supplying the same, without the conditions as to previous conviction contained in that section.

7. That when making an order of guardianship or an order for compulsory detention in a retreat the sheriff should also be empowered to require, where necessary, the inebriate, or any person on whom he is legally dependent, to pay the expenses of the application, or of guardianship, or maintenance in a retreat, to such an extent as the sheriff shall consider reasonable and proper, where the inebriate or such other person is possessed of means available for this purpose.

Drunkenness and Crime.

8. That Section 23 of the Inebriates Act, 1898, should be amended so as to apply also to cases tried summarily. It should be the duty of the procurator-fiscal in all cases where the offence is committed under the influence of drink, or of which drunkenness was a contributing cause, and where there is prima facie evidence that the offender is an inebriate, to charge him with being an inebriate as well as with the offence; and that in all cases of offences tried under an indictment or summarily, where the offender pleads guilty or is convicted of the offence, the court should have power to deal summarily (that is, without a jury) with the question whether the offender is or is not an inebriate, and, if satisfied that he is, in addition to or in substitution for any other sentence, to order his detention in a reformatory.

9. That in cases under Sections 23 and 24 of the Inebriates Act, 1898, where there have been three previous convictions as aforesaid, or where the person charged has been under detention in a reformatory, or under guardianship, within the twelve months preceding the date of the commission of the offence with which he is charged, the onus of proving that he is not an inebriate shall be placed on him.

10. That the scheduled offences should be extended so as to include:

(1) Assault, when the offence was committed under the influence of drink or where drunkenness was a contributing cause of the offence.
(2) Breach of the peace, where the offence was committed under the influence of drink or where drunkenness was a contributing cause of the offence.
(3) Malicious mischief, where the offence was committed under the influence of drink or where drunkenness was a contributing cause of the offence.
(4) Theft, where the offence was committed under the influence of drink or where drunkenness was a contributing cause of the offence.
(5) Begging, where the offence was committed under the influence of drink or where drunkenness was a contributing cause of the offence.
(6) Being a common prostitute, and loitering or importuning in a public place for the purpose of prostitution while under the influence of drink.
(7) Cruelty to children, where the offence was committed under the influence of drink or where drunkenness was a contributing cause of the offence.

11. That where a person has been convicted of being an inebriate under Section 23 of the Inebriates Act, 1898 (amended as above), the court, in addition to, or substitution for, any other sentence in respect of the offence with which he is charged, should have power:

(*a*) To place the offender under guardianship; or
(*b*) To commit the offender to a reformatory.

12. That where a person has been convicted of being an inebriate under Section 24 of the Inebriates Act, 1898 (amended as above), the court, in addition to, or substitution for, any other sentence in respect of the offence with which he is charged, should have power:

(*a*) To place the offender under guardianship; or
(*b*) To sentence him to imprisonment for a period not exceeding six months; or
(*c*) To commit him to a reformatory.

Parish Councils and Inebriates.

13. That a Treasury grant should be made to any after-care associations approved by the Secretary for Scotland to induce them to render assistance to inebriates on their release from reformatories. That the State should at its own cost provide for the accommodation and maintenance of all inebriates who are convicted of an offence, and who are committed by the courts.

14. The inebriates in reformatories should be classified. That the local authority (either alone or in combination with other local authorities) should provide for the accommodation and maintenance in retreats of inebriates within their district committed by order of the sheriff, who are unable (either at their own cost or at the cost of those legally liable for them) to pay the charges for maintenance in a retreat. Such accommodation might be provided by the local authorities erecting or acquiring such retreats, or by paying for the maintenance of inebriates in retreats, the managers of which are willing to receive them. For inebriates who desire to enter retreats, and are unable to pay the charges for maintenance in a retreat, the local authorities should be empowered to provide accommodation at their discretion. That, on default of the local authorities, the Secretary for Scotland should have power to require them to provide such accommodation as he may consider necessary, or to combine for this purpose; and, failing their doing so, to provide the same at their expense.

15. That a parish council should be entitled to apply to the sheriff setting forth that a person is an inebriate, and has within the twelve months immediately preceding the date of such application received poor relief not more than three times; and on such application the sheriff should, after such inquiry as he deems necessary, if satisfied that the person is an inebriate and has received relief as aforesaid, have power to order him to be detained in a pocrhouse devoted to that purpose as hereinafter provided for a period not exceeding three years. That parish councils, either alone or in combination, should have power, with the consent of the Local Government Board for Scotland, and subject to such conditions as may be approved of by them, to acquire, make use of, maintain, and manage any existing poor-house not required or only partially required for Poor Law purposes, or to erect a poorhouse for the detention of inebriates committed as above, and to rate for this purpose. Dealing with urgent cases of acute alcoholism, the

committee recommends that the sheriff should have power, on an application by the nearest available relation, or by any person having an interest, accompanied by an affidavit of a medical man, to pronounce an order of urgency for the care, control, and treatment of the person in respect of whom the application is made for a period not exceeding fourteen days. Such an order should be available as evidence on any subsequent application in terms of the Inebriates Act.

Ireland.

[FROM OUR SPECIAL CORRESPONDENT.]

DUBLIN HOSPITALS' TUBERCULOSIS COMMITTEE.

A special meeting of the committee was held on July 16th, when there were present Her Excellency the Countess of Aberdeen, Sir John Moore (in the chair), Dr. M. F. Cox, Dr. Alfred R. Parsons, and Sir William J. Thompson (Honorary Secretary).

Her Excellency stated that on her recent trip to Canada and the United States she had had the opportunity of meeting a number of workers in the antituberculosis campaign, which is being carried on so actively in America, and had been invited to address several meetings in New York, Boston, and Detroit, with the special object of describing how the crusade was being conducted in Ireland under the auspices of the Women's National Health Association. Great interest was manifested in the movement, and the result had been the formation of committees in the cities above mentioned for the purpose of arousing sympathy among American citizens of Irish parentage, and of obtaining their practical co-operation in assisting the work in Ireland. One gentleman, Mr. Robert Collier, had already promised Lady Aberdeen £1,000 per annum for five years, with the object of equipping and starting a tuberculosis dispensary in the city of Dublin in memory of his late father, Mr. P. J. Collier, and to be called after him. The committee expressed its pleasure at this announcement and its gratification at the practical results of the meetings addressed by Lady Aberdeen on behalf of the health movement in this country. It was agreed to communicate with the Dublin hospitals with the object of obtaining their co-operation in the work of the proposed tuberculosis dispensary.

TUBERCULOSIS IN ULSTER.

The Derry County Council has appointed a committee to consider the whole question of tuberculosis, including the mortality in the county, the notification of the disease, and the erection of a county sanatorium.

The Superintendent Medical Officer of Health of Belfast has reported in favour of voluntary notification of consumption, and presented a return to the meeting of the Health Committee of July 15th, showing that during the half-year ending June 26th, the following voluntary notifications were made: Union workhouse, 462; registrars of cemeteries, 219; medical officers of health, 158; Women's National Health Association, 132; other notifications, 96; Nurses for the Sick Poor, 83; applicants for admission to the Forster Green Hospital (Corporation beds), 81; total, 1,231.

This is satisfactory as far as it goes, but the returns of the registrars of cemeteries is rather inconsistent with notification during life. There are over 1,000 deaths per year in Belfast from pulmonary tuberculosis alone, and from 5,000 to 10,000 living persons suffering from the disease.

LUNACY FEES.

Dr. Hayes sued the Rathkeale (co. Limerick) Guardians before the county court judge for £6, being £2 each for examining three lunatics, which amount was certified for by the magistrates who called him in, and the county court judge granted him a decree for the full amount with costs, the guardians having refused to pay more than £1 in each case. The guardians appealed to the Judge of Assize, and in cross-examination Dr. Hayes admitted that the certifying justices were doctors, no other justices being available.

Mr. L. O'Brien Kelly, for the guardians, said that the Act allowed justices to give reasonable remuneration, which should not exceed £2 in each case. The orders in these cases were bad, inasmuch as they did not segregate the fee for the medical officer from the other expenses attendant on the conveyance of the lunatics.

It does not appear, however, that there were any other expenses payable by the guardians, lunatics being conveyed upon the magistrate's warrant at the expense of the Crown.

Mr. Justice Johnson reduced the amount in each case to one guinea, and gave a like decision in similar cases instituted by Dr. Nolan, of Shanagolden, and Dr. Maguire, of Rathcale. This was pure bad luck for these three gentlemen, for over and over again judges of assizes have reversed the decisions of county court judges who refused to give more than a guinea a case.

OUTBREAK OF ENTERIC FEVER.

There has been an outbreak of enteric fever near Borrisoleigh, on the borders of the Thurles and Nenagh Union, and 13 cases have been conveyed to the fever hospital. The source of the disease has not yet been determined, but the Local Government Board has instructed Inspector Dr. Brown to make an investigation regarding it.

THE POPULATION OF IRELAND.

The report of the Registrar-General for Ireland for the year 1908 shows that the natural increase of population in the country was 25,148; lost by emigration, 23,295, which is less than the average number for the previous ten years.

The marriages registered in Ireland during the year 1908 numbered 22,734, the births 102 039, and the deaths 76,891. The marriage-rate was 5 20 per 1,000 of the estimated population, showing an increase of 0.06 as compared with that of the year 1907, and an increase of 0.10 as compared with the average rate for the ten years, 1898–1907. The birth-rate was 23.3 per 1,000 of the estimated population, being 0.1 above that of the preceding year, and also 0.1 above the average rate for the ten years 1898–1907, and the death-rate (17.6 per 1,000) was 0 1 below the rate for the preceding year, and 0.2 under the average rate for the ten years 1898–1907.

Marriages.

Of the 22,734 marriages registered during last year, it is shown that 16,069 were between Roman Catholics, 3,474 were celebrated according to the rites and ceremonies of the Church of Ireland, 2,306 were in Presbyterian meeting houses, 446 in "registered buildings" belonging to various religious denominations, only 421 by civil contract in the registrars' offices, 5 were according to the usages of the Society of Friends, and 13 according to the Jewish rites. The rate for Roman Catholic marriages is 4.95 per 1,000 of the Roman Catholic population, estimated to the middle of 1908, or 0.20 over the corresponding average rate for the preceding ten years, and the other marriages represent a rate of 5.91 per 1,000 of all persons other than Roman Catholics in the population, this rate being 0 13 below the corresponding average rate for the ten years ending with 1907.

Births.

The births registered during 1908, namely, 102,039, include 52,396 boys and 49,643 girls, or 105 5 of the former to every hundred of the latter, the rate afforded in proportion to the estimated population being 1 in 42.8 or 24.3 per 1,000, which is 0.1 above the average rate per 1,000 for the ten years 1898–1907. Of the 102,039 children whose births were registered in Ireland during the year 1908, 99,449, or 97.5 per cent., were legitimate, and 2,590, or 2 5 per cent., were illegitimate, the latter being 0.1 below the corresponding average percentage for the preceding ten years. These results bear favourable comparison with the returns for most other countries. The number of male children born in wedlock during the year was 51,090, and of female 48,359, or 105.6 of the former to every 100 of the latter. Of the illegitimate children, 1,306 were males, and 1,284 females, being 101.7 boys to 100 girls.

Of the children born in Ulster 3.4 per cent. were illegitimate; in Leinster the percentage was 2 6, in Munster 2.1, and in Connaught 0.7. An investigation regarding multiple births in Ireland was undertaken for the year 1908 for the first time. Of the total births—namely, 102,039—there were 1,198 twin births, and 10 triplets. The proportion of twin children to total children was 1 in 426, and the percentage of twin births to single 1 203.

The Death-rate.

During the year 1908 the number of deaths registered in Ireland was 76,891, equivalent to 1 in 57, or 17.6 per 1,000 of the population, estimated to the middle of the year. The deaths of males amounted to 38,219, and those of females to 38,672, the rate per 1,000 males and 1,000 females being 17.6. The death-rate (17.6) is 0.1 below that for the year 1907, and 0.2 under the average rate for the preceding ten years. The total number of deaths from all forms of tuberculous disease was 11,293, as against 11,679 registered in the year 1907, the former figure representing a death-rate from the disease of 258 deaths in every 100,000 of the population, and the latter a rate of 267 per 100,000 of the population.

For the four Provinces the recorded death-rates are as follows: Connaught 13.8, Munster 16.1, Ulster 18.1, and Leinster 19 1 per 1,000 of the population, according to the Census of 1901.

Tuberculosis.

The report states:

It is my pleasing duty to have the honour of reporting to Your Excellency the fact that the rate of mortality per 1,000 from all forms of tuberculosis declined during the year 1908 to 2.6, the corresponding figure for the three years 1905, 1906, and 1907 being 2.7. When the actual numbers are taken it appears that, as compared with the mortality of the previous year, there were 386 fewer victims to the ravages of the disease, which is a matter for much congratulation. A further satisfactory feature, moreover, is that the decline is observable in the pulmonary cases, which number 8,511, as compared with 8,828 in 1907. I earnestly trust that this may be the beginning of a gradual fall in the death-rate from this terrible malady, and that the magnificent antituberculosis campaign inaugurated and carried on through the agency of the Women's National Health Association of Ireland—by Her Excellency the Countess of Aberdeen—has begun to tell on the mortality records of our island. The Tuberculosis Exhibitions held under the auspices of Her Excellency in almost all its large towns, and the tuberculosis vans which under her direction have travelled through many of the rural districts, have instructed the people as to the infectious nature of the disease, and the means of protecting themselves from its ravages, and evidences are not wanting that the lessons thus inculcated are bearing fruit, and that in many places there has been a material change for the better amongst our people in their habits and surroundings.

The return states that in 1864 in England and Wales the rate was 3.3 per 1,000, and in the year 1907 it was 1.6 per 1,000. In Scotland in 1864 the rate was 3.6 per 1,000, and in 1907 it had fallen to 2.1 per 1,000; and in Ireland the rate, which in the first year of the period was 2.4 per 1,000, was 2.6 per 1,000 in the year 1908, having declined to this from the rate of 2.7 per 1,000, representing the mortality from tuberculous disease in Ireland in each of the years 1905, 1906, and 1907.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

PROPOSED RECEIVING HOUSE FOR INCIPIENT MENTAL DISORDER.

THE Asylums Committee submitted to the London County Council on July 20th a report in favour of reviving the Lunacy Acts Amendment (London) Bill, the object of which is to secure to the Council power to establish receiving houses for persons mentally afflicted, or alleged to be of unsound mind, and to authorize their detention in such houses. The bill has been several times under the Council's consideration, and has been introduced into Parliament, though it has not become law. The report of the Royal Commission on the Care and Control of the Feeble-minded recommended the provision of receiving houses on lines very similar to those suggested in the Council's bill. The Commissioners said:

The special advantages of reception wards for the clinical study of mental disease are so evident that many general hospitals, especially those to which medical schools are attached, would be glad, we think, if they were subsidized, to provide them within their own premises with medical, nursing, and attendant staff complete.

Summarizing the reasons which led to the introduction of this legislation, the Asylums Committee points out that at present the Council's duty to the lunatic commences and ends with his admission to and discharge from one of the asylums. The initial proceedings—that is, the information to be given to a justice of the peace as to the lunacy of an individual, his removal to a workhouse or infirmary, and thence to the asylum—devolve upon the relieving officer, and in some cases upon the police constable. In the thirty unions and parishes into which the county of London is divided the methods of dealing with lunatics naturally varied considerably. The great majority of those received into the Council's asylums were described as paupers in receipt of relief, perhaps under the authority of Section 18 of the Lunacy Act, 1890, which enacted that a person who was visited by the medical officer of the union at the expense of the union was, for the purposes of the section, to be deemed to be in receipt of relief. The number of patients removed direct from their homes to the asylums was very small, the practice having grown up in the metropolis of removing practically all cases to the workhouse under Section 18. A very large percentage of the lunatics who became inmates of the asylums had never had cause to seek poor relief, and had only entered the workhouse in consequence of their lunacy. Their removal to the workhouse was often considered by the friends a great hardship, and complaints were frequently made. There was, however, at present, apart from the workhouse, no available house of reception for alleged lunatics. In cases in which the relieving officer took proceedings he did so in a quasi-independent capacity, and as regards the medical examination of the patient, the medical officers of the unions had no legal claim to be called in by the justices in preference to any other duly registered and qualified practitioner. In the majority of the unions and parishes of London, however, the medical officer of the union or parish certified and received a fee for so doing.

The scheme to be embodied in the bill was that the Council should provide receiving houses, to be entirely under its supervision and staffed by its officers, to which an alleged lunatic would be taken instead of to the workhouse. The medical superintendent of the receiving house would have power to detain the alleged lunatic for a period not exceeding three days, but before the expiration of that period he must bring him before a justice or else discharge him. The medical superintendent must report to the justice whether, in his opinion, the alleged lunatic should be sent to the county asylum or be detained in the receiving house. If the justice decided that the case was one for asylum treatment the usual proceedings under the Lunacy Act, 1890, would be taken. If, however, he decided that the case was one for detention in the receiving house the justice would call in the superintendent and might, if he thought fit, call in any other medical practitioner, and after investigation order the alleged lunatic to be detained in the receiving house. The detention order would only remain in force for a period of six weeks; extensions not exceeding three weeks at a time might be made by a justice if thought necessary. During his detention in a receiving house the patient would not be designated a lunatic or a pauper. At any time during the period of detention the medical superintendent, if he thought the patient should be removed to an asylum, might bring the patient before a justice with a view to the ordinary reception order being made.

The committee considered that the advantages of the proposed scheme were evident. The alleged lunatic, directly he entered the receiving house, would be under the care of medical men who had specialized in mental disease. The most experienced alienists were of opinion that the increase of insanity which had been apparent in London during recent years could only be limited by the early treatment of cases. Such treatment would be provided in receiving houses, and thus without doubt many persons who at present were sent from the workhouses to asylums would not need to go to asylums at all, but would improve and recover at the receiving houses. In connexion with the receiving houses there could be, if required, an out-patient department, which would enable persons who needed it to obtain advice.

It was believed that in many cases incipient mental disease might thus be arrested, and the need for protracted seclusion in an asylum avoided. The bill proposes that the certification of lunatics for detention in an asylum should be placed in the hands of the medical officers attached to

the receiving houses, and in this it coincided with the spirit of the recommendations of the Royal Commission. There would be discrimination as to the necessary treatment and classification of each patient, and thus only those who needed detention in an asylum would be sent there. The bill proposed also to obtain power for the provision of ambulance stations and ambulances which would enable lunatics to be brought to the receiving house and to be transferred to the asylums with proper care and attention. There would be considerable economy in this, as at present each union made its own arrangements for the removal of lunatics, and at times the arrangements left much to be desired.

The committee heartily agreed with the pronouncement of the Royal Commission that receiving houses should be established without delay, and considered that the special circumstances of London called for immediate action, and as it seemed improbable that the Government will introduce early legislation on the lines of the report of the Royal Commission, the County Council should make a move in the matter. When the question of providing receiving houses was before the Council in 1899, it was suggested that four should be established, each to accommodate 250 patients, the approximate expenditure being £500,000. The committee had subjected this scheme to severe pruning, and now proposed the establishment of two receiving houses, each for 250 patients, one on the north and one on the south of the Thames. By utilizing part of the site being purchased for a mental hospital under the terms of Dr. Henry Maudsley's gift the committee thought the total cost of the scheme should not exceed £150,000 to £180,000.

The Finance Committee, reporting on the financial aspects of the proposal, set forth the following considerations *pro* and *con*. There would be a saving to the ratepayers, because (1) the early treatment of incipient mental cases would minimize the increase of insanity; (2) the certification of patients would be done mainly by the medical officers of receiving houses without extra fee; (3) the conveyance of patients from the receiving houses to the asylums would be more economical than their conveyance from twenty-nine different unions. The cost falling upon the Council would be: (1) Capital cost of buildings, (2) repair of buildings, (3) possible cost of maintenance of out-patient's department, (4) pensions of staff. As regards maintenance of patients, this would be recovered from the guardians, but the cost in the receiving houses might be more than in the workhouses or infirmaries. The Finance Committee proceeds:

> We are of opinion that the arguments which have been adduced by the Asylums Committee in support of these proposals are such as to warrant the Council in obtaining parliamentary powers to establish as an experiment *one* receiving house. It appears to us inexpedient and unnecessary to obtain any further powers at present. In the event of one receiving house being established and proving a success there would be no difficulty in obtaining additional powers. We are prepared to support the proposal if its scope is limited in this direction. By proceeding in a tentative and cautious manner the Council would avoid the danger of anticipating Government action upon the report of the Royal Commission.

The committee adds, in conclusion, that the possibility of establishing the receiving house on the site of the proposed mental hospital influenced it largely in coming to its decision, as it seemed to point to the possibility of trying an important experiment on a comparatively small scale. The Report will come before the County Council next week.

Municipal Subscriptions to Voluntary Hospitals.

The General Purposes Committee on July 20th recommended the London County Council to apply to Parliament next session for authority to contribute to the funds of hospitals and similar institutions at which employees of the Council receive treatment for injuries sustained in the course of their employment. The committee had been informed that the Admiralty contributes to the funds of hospitals in which injured employees are treated, but the County Council has been obliged to refuse applications for grants in similar circumstances, although if the employee were treated privately the Council would probably have to pay. The Council might also wish to subscribe to convalescent homes to which workmen and others of very limited means were sent. At present tickets and letters were obtained from private persons, and the opinion had been expressed that the Council should not have to rely on private charity in such a matter. The authority sought should, therefore, cover contributions to such institutions. As regards the maximum amount to be contributed in any one year, the committee had ascertained that Kingston-upon-Hull Corporation and Stratford Urban Council had obtained statutory authority to expend annually for this purpose sums not exceeding £200 and £100 respectively. Having regard to the large number of employees in the Council's service, and the hazardous nature of the occupations of many of them, the committee proposed that the maximum should be fixed at £500. The contributions to any institution in any one year should be based, it was suggested, on the average capitation cost of the patients received in the preceding year. The recommendation was adopted.

The New King's College Hospital.

The foundation stone of the new King's College Hospital at Denmark Hill was laid by the King on July 20th. It will stand on a site rising towards the south, overlooking Ruskin Park. The main elevation, 1,000 ft. long to the north, contains the administrative block in the centre, with the medical school to the west, and the out-patient and casualty departments to the east. The ward pavilions, which will contain 600 beds, will be erected on the southern part of the site. The building was commenced some time ago, and the casualty and out-patient departments are approaching completion. The out-patient department consists of a central hall, off which the consulting rooms open; above the casualty department are eight separate one-bed wards.

His Majesty, who was accompanied by the Queen, was received by the Hon. W. F. D. Smith, M.P., Chairman of the Committee, and Mr. Charles Awdry, Treasurer of the hospital, and among those present on the platform were the Senior Physician and Surgeon (Dr. Nestor Tirard and Sir W. Watson Cheyne, Bart.). Mr. Smith, in presenting an address, said that the site of the hospital measured twelve acres, and that, in addition, some thirty acres had been acquired, partly by private liberality and partly by public funds, for a people's park, so that the hospital would always have the advantage of an adjoining open space larger than that enjoyed by any similar institution in London. The removal fund now amounted to £229,000, towards which the King Edward's Hospital Fund had given £27,000. The King, in his reply, said that King's College Hospital was specially and closely associated with the great work of Lord Lister, who, in introducing the antiseptic method in surgery, rendered an inestimable benefit to all mankind. The decision to abandon the old building and to remove the hospital to a poorer and more populous district, where the need for a hospital was greater and the field for its work wider, was a bold, and, in His Majesty's opinion, a wise and right step. He congratulated the medical and nursing staffs on the great opportunity thus given for increased usefulness. The King on his way to the ceremony received an address from the Mayor and Corporation of Camberwell, thanking him for his courteous action in consenting to lay the foundation stone of a building which would be used to alleviate distress and pain, and assist with medical comfort and aid the poor among the 300,000 inhabitants of the borough and million persons beyond its borders.

LEEDS.

Examinations for the Degrees in Medicine.

Recent Changes in the Regulations.

The end of the present summer term seems an appropriate time for comments on some changes in the regulations for the course of study and examinations for the degrees in medicine and surgery. These regulations have been directed to secure a longer period of the curriculum for hospital work, to institute a clinical examination in obstetrics and gynaecology, and to introduce as one of the factors in the awarding of honours a knowledge of modern languages. The regulations, when instituted, were not made retrospective, so it is only now that with the lapse of time they are coming into effect. The test in a knowledge of modern languages is much the same as that for many years associated with the membership of

the Royal College of Physicians of London, and takes the form of the translation of passages from French, German, and other modern languages. It is not intended that the ordinary pass standard shall in any way be influenced by the institution of this test, but that the knowledge a student has of modern languages shall be taken into consideration in the award of honours. The regulation appears to be a sound one. It does not cut any one off from obtaining honours who is not acquainted with modern languages, nor is it in any way intended to make a knowledge of languages cover deficiency in other subjects. The institution of a clinical examination in obstetrics and gynaecology was given effect to in the recent examination. It is believed that the University of Leeds is one of the first bodies in the country to make this important innovation, and, coupled as it is with some important changes in the teaching, it marks a distinct advance in the recognition of the importance of these subjects. The institution of the five years' curriculum was expected by many to secure an extra year for clinical subjects, but every one knows that the extra twelve months have not gone in that direction. As a rule, the first three years have been devoted to chemistry, biology, and physics, and to anatomy, physiology, materia medica, and pharmacy, and the last two years to the real professional subjects, such as medicine, surgery, and midwifery, along with pathology and hospital work. In view of the relative importance of the various groups of subjects this is an unfair division. The regulations now will secure that after a student has passed his matriculation examination he begins his preliminary scientific course in October, taking classes on chemistry, biology, and physics during the first and second terms. In March he should pass chemistry and physics. During the third or summer term he continues his studies in biology and attends lectures on an introductory course of anatomy and dissects. At the end of the term he should pass in biology, and should be acquainted with the bones of the body and with at least one "part." During the next year he will devote himself entirely to anatomy and physiology, with the addition of materia medica during the third term, the examination on the subject being taken at the end of the summer term. The examination in anatomy and physiology will be taken at the end of the first term of the following session—that is to say, in December instead of in March, or, in other words, at the end of the eighth term of the curriculum instead of at the end of the ninth as formerly. In this way a student will begin his senior subjects and enter on full hospital duties in January instead of in May, and an increase in the amount of time devoted to the senior subjects and to clinical work will be secured.

MANCHESTER AND DISTRICT.

THE MIDWIVES ACT IN MANCHESTER.

THE annual report of the Manchester Midwives Supervising Committee has become an important document, as it probably shows the working of the Midwives Act at its best. The report for 1908 just issued is divided into three parts: First, a summary by Dr. Niven, the medical officer of health; then the report proper, with statistics by Dr. Merry Smith, the lady inspector of midwives; and lastly, a special report by Dr. Knyvett Gordon on puerperal fever. Dr. Niven says that it is unlikely that there will be any shortage of midwives in Manchester in 1910; he suggests that in the rural districts the Act, if strictly enforced, will probably entail the creation of a new public health service of persons qualified as nurses, midwives, school nurses, and health visitors, paid by the districts to which they are allotted, while suitable payments might be made to the authorities by patients engaging the services of these nurses. The midwives in Manchester at present have a difficulty in making a living, and many of them apply for the position of health visitor in addition. Special attention has been paid during the year to ophthalmia neonatorum, and a conference was arranged between the medical subcommittee and two of the staff of the Royal Eye Hospital. In the opinion of the staff of the eye hospital there is no danger in introducing a drop of a 2 per cent. solution of silver nitrate into the eye of the newborn infant, and we are told that "it is desirable in all cases as a prophylactic." The committee is doubtful as to the desirability of entrusting this to the midwives. but Dr. Niven suggests that it would be useful if a demonstration of the method were given to midwives at the Eye Hospital.

Statistics.

The number of midwives in 1908 was 147, of whom 68 per cent. were certificated. The lady medical inspector made 258 inspections of midwives at their homes, and on the whole reports very favourably on the way in which they keep their records. The mode of practice of 75 midwives was investigated in the houses of patients, 312 lying-in women being thus visited, both in the presence and in the absence of the midwives. Complaints of negligence or misconduct were made against four midwives, and one was struck off the roll.

The total births registered during the year were 19,041, and of these midwives attended 11,498, that is, just over 60 per cent., while doctors attended 7,543, or 40 per cent. The proportions are almost exactly the same as last year, and differ somewhat strangely from Salford, where midwives attend 76 per cent. of the births. The total number of stillbirths of which there is any record was 888, compared with 818 in 1907, and of these 539 occurred in the practice of doctors and 349 in the practice of midwives.

Medical Assistance.

Medical assistance was summoned by midwives in 1,634 cases, in 1,060 cases for difficulties in labour, 358 for the infants, and the remainder for complications during pregnancy or the lying-in period. Tedious labour is given as the reason in 384 cases, rupture of perineum in 183, and rise of temperature to 100.4° in 81 cases. Manchester and two other towns only in the whole country has an arrangement by which the corporation under the Public Health Act of 1875 pays a fee to medical men for responding to the summons of a midwife in the case of patients below a fixed wage limit. Under this scheme 315 applications for a fee were received from practitioners, and payment was actually made in 272 cases, amounting to £279. Of the 43 rejected applications, in 28 the patient's income was above the scale, while the rest were not cases for which payment is made. In these cases the doctor had to look to the patients themselves for his fee. In the previous year payment was made by the committee in 239 cases amounting to £247.

Puerperal Fever.

In 1908 101 cases of puerperal fever occurred, with 24 deaths. This is an attack-rate of 5.3 per 1,000 births, and a case mortality of 23.8 per cent. Of the 101 cases, 54 occurred after normal full-term labour, with 15 deaths; 14 after abortion, with 2 deaths; and 33 after abnormal full-term labour, with 7 deaths. Perineal tear was stated to be present in 19 cases, 2 of which died. Forceps had been used in 22 cases—that is, in over one-fifth of the total, with 5 deaths. The attack-rates after normal labour and after forceps, of course, cannot be stated, but it is curious to note that the death-rate of cases after normal labour is considerably higher, 28 per cent., than the rate after forceps, 22.7 per cent., while the death-rate in cases of perineal tear, 10.5 per cent., was so low as to suggest that many of the cases were only sapraemic, not septicaemic. In the 7,543 patients attended by doctors alone there were 50 cases of of puerperal fever with 13 deaths, an attack-rate of 6.6 per 1,000 births and a case mortality of 26 per cent. In the 11,498 patients attended by midwives there were 51 cases with 11 deaths, an attack-rate of 4.4 per 1,000 and a case mortality rate of 21.5 per cent. The attack-rates are not directly comparable in doctors' and midwives' cases, as it should be noted that of the 51 midwives' cases only 37 were attended by midwives alone, while a doctor had been summoned to the assistance of the midwife in the other 14. The 37 were thus probably normal labours and the 14 abnormal. In addition, it is practically certain that in the doctors' cases some nurse had been present who undertook the after-nursing. Dr. Knyvett Gordon, Superintendent of Monsall Fever Hospital, gives notes on 69 of the cases admitted to that hospital. An accurate history of the exact time of onset of symptoms was obtained in 67 cases, and assuming that the incubation period is not over forty-eight hours, Dr. Gordon is thus able to say that in 27 out

of the 67 infection took place at the time of delivery. As to the other 40 cases he makes the following important remarks:

> Though a medical man was present in the majority of these 40 cases, he would not, as a rule, have occasion to make an internal examination at visits paid subsequent to the confinement, so he cannot very well be held directly responsible for the infection of the patient. It is important to bear this point in mind, as it is within my experience that the medical attendant has often either received or assumed blame for these later infections.

This is especially important as showing that the excessive number of doctors' cases, compared with midwives' cases, is partly at any rate to be explained by the fact that when a doctor attends there is often also an ignorant and untrained nurse to look after the patient, and carelessness on her part a day or two after labour may often account for the infection. The supervision of the midwives themselves is so good in Manchester that it is not likely that they often fail to notify cases. The Supervising Committee is so convinced of the great importance of ordinary monthly nurses being under some supervision that it passed a resolution that in order to deal more effectively with the prevention of puerperal fever the Government should be urged to extend the provisions of the Midwives Act so as to confer such control on the authorities. A small book of instructions was also issued and distributed to monthly nurses, but great difficulty is found in getting a complete list of such nurses. The treatment of puerperal fever at Monsall is mostly sharp curetting, followed by swabbing with pure izal, the uterus and vagina being then packed with gauze soaked in dilute izal; in no case was douching used. In 14 cases the abdominal cavity was opened, mostly for suppurative peritonitis. Bacteriological examination showed that in 51 out of 61 cases examined the only infecting organism was a streptococcus, in 3 only the *Bacillus coli communis*, in 1 only the pneumococcus, and in 3 only staphylococcus. The duration of stay in hospital of cases that recovered averaged six weeks, Dr. Gordon being strongly of opinion that prolonged rest is necessary if the patients are not to become chronic invalids.

WALES.

University College of Aberystwith.

Once more have the Davieses of Plas Dinam demonstrated their keen interest in the welfare of Welsh students. On this occasion their solicitude for the college at Aberystwith takes the form of a valuable gift for a new college hall. In a letter Mr. David Davies, M.P., writing on behalf of his mother and sisters, outlines the scheme under which the contribution will be made for the erection of a men's hostel, and further accommodation for the normal students of the college. It is anticipated that the cost of such a hall will be £8,000. Among the conditions that the family attach to the offer are: (1) That the college will undertake to provide a suitable site. (2) That the residential accommodation to be provided for the ordinary students of the college, and the normal students should be in the same building. (3) That the college will undertake to provide residential accommodation for at least one-third of the present number of ordinary students, and that it be made compulsory for those students to be in residence. (4) If, at the end of three years' experience of such hostel it be found satisfactory, and no financial loss be sustained, that the college will agree to enlarge the hostel so as to accommodate at least two-thirds of the students to be in residence. (5) If at the end of six years it be found satisfactory, the college to further enlarge, so as to accommodate all the men students. (6) The offer, if accepted, not to affect the contributions as regards accommodation of the students, to be made either by county authorities or the Board of Education.

Remuneration of Poor Law Appointments.

When some time ago Dr. J. E. H. Davies, one of the medical officers and public vaccinators of the Wrexham Union, tendered his resignation, he was asked by the guardians to reconsider it. At a recent meeting, however, a further letter was read from Dr. Davies, in which he stated that, while fully appreciating the kind references made to the manner in which he had carried out his duties, his intention to resign was formed after very careful consideration. The present remuneration did not sufficiently repay him for the work and anxiety; further, the Vaccination Act, 1907, had done much to destroy the careful preventive measures of the past, and must lead within a few years to heavy infantile mortality, unnecessary suffering, and disfigurement at each successive visitation of small-pox. Other points which he considered were an injustice to district medical officers and public vaccinators were: That no arrangements were made for increase of salaries of these officers in ratio to the increase of population in their districts; that extra work had been thrown upon them without extra remuneration by the Elementary Education Act; that extra work had been added to their duties without extra remuneration by the Old Age Pension Act—many worthy poor, who would in the past have sought the refuge of the workhouse, now remained outside as (*a*) pensioners, or (*b*) qualifying for a pension, and as such were entitled to medical relief; that the fees for successful vaccination had been reduced from 6s. to 3s. 6d. without any reduction in the amount of work for the public vaccinators; that the working expenses of the Poor Law medical officers and public vaccinators had increased.

In reply to a member who asked whether a Poor Law doctor was obliged to attend an old age pensioner, and under what provision of the Pension Act this obligation arose, the Chairman said that the medical attendance was given under the Poor Law and not under the Old Age Pension Act. After some discussion it was resolved to accept Dr. Davies's resignation and to advertise the vacancy on the present terms and conditions. Some of the guardians appeared confident that plenty of applications would be received, but, even should this anticipation be fulfilled, Dr. Davies's protest will not have been altogether without effect, although this effect would be vastly increased if the profession generally were to support his protest in the only effective way.

Cardiff Infirmary.

At a meeting of the Cardiff Infirmary Board of Management held on July 14th a report was presented by the Finance Committee stating that the overdraft of £18,423, due to the bankers, had been increased to £19,620—£6,478 on capital expenditure and £13,142 on working account. Colonel Bruce Vaughan observed that the responsibility of the overdraft did not rest with the board, for it had done its duty; its policy had been to use every available bed, to give succour and help to all the afflicted. But the waiting list—658 men, women, and children—ought to touch a heart of stone. In the casualty department, since January last, quite 112 accidents had been treated every week. One week last month there were 198 cases in a hospital with 190 beds; 14 additional nurses had been added to the staff since June, 1908. The apathy and indifference of the women in Cardiff to the suffering of their fellows was appalling. A band of able, earnest women, with a leader of ability, would make short work of the effort and obtain a sufficient income.

Rhymney Valley Sewerage.

The report of Mr. Baldwin Latham, the special engineer appointed by the Bedwellty District Council to submit alternative sewerage schemes to that proposed by the Gelligaer Council, pointed out that the population of the Rhymney Valley, exclusive of Caerphilly, was about 46,000, but consideration should be given to the needs of the whole valley down to below St. Mellons, and provision made for a future population of 200,000 persons. In a scheme for the total diversion of the sewage from the valley the work could be carried out by means of an independent scheme, or one which might be joined with the existing outfall sewer of the Western Valleys. If, however, the works were joined with the Western Valleys sewers it would be desirable that the sewage of a larger population than 140,000 persons should be conveyed to that outfall. If provision for a larger population than that were made it would be better to have independent works with direct outfall to the sea. One of the great advantages of a total diversion scheme, sanctioned by Parliament, over a a scheme which might be approved by the Local Government Board, was that Parliament sanctioned a longer period for the repayments of loans. Loans approved by the Local Government Board had to be repaid in thirty

years or less, whereas in the case of the Western Valleys fifty-five years had been sanctioned for the diversion scheme. The multiplication of works for local treatment of sewage was undesirable. Diversion into the sea formed a complete and final solution of the sewage difficulty. The cost of works for the conveyance of the Rhymney Valley sewage into the outfall of the Western Valleys main drainage system would be £180,000—as far as Park Wood. The annual expense of a total diversion scheme for 70,000 persons would be £8,676, and a total diversion scheme for conveying the sewage down the valley to St. Mellons would cost £231,526. Mr. Latham's report was discussed at a conference of Gelligaer, Bedwellty, St. Mellons, and Mynyddislwyn Councils, and on the motion of the Chairman it was resolved that each council should consider the matter and then communicate with the Gelligaer Council.

Hong Kong.

[From our Special Correspondent.]

Death of Dr. William Hunter, Government Bacteriologist.

Dr. William Hunter, who since 1901 has held the position of Government bacteriologist in Hong Kong, died suddenly on June 9th at the early age of 34. As a student he had a distinguished career at Aberdeen University, graduating in 1893 M.B., C.M., the most distinguished graduate of his year. After graduation, Dr. Hunter devoted himself to pathology and bacteriology, holding appointments in Aberdeen Royal Infirmary and the London Hospital, and also studied at Berlin.

On his appointment to Hong Kong, he entered with great enthusiasm into the investigation of many diseases found amongst the Chinese, and his annual and special reports contained much valuable information on bubonic plague, beri-beri, the causes of the infantile mortality amongst Chinese, on typhoid fever amongst Chinese, on malignant tumours, and on malaria; he was also a frequent contributor to the medical journals. Dr. Hunter was lecturer on pathology and bacteriology in the Hong Kong College of Medicine, and the following resolution well expresses the esteem in which he was held by his fellow lecturers:

> The members of the Senate of the Hong Kong College of Medicine desire to convey to the widow of the late Dr. William Hunter their most sincere sympathy with her in her bereavement. Dr. Hunter, since his first arrival in the colony in 1901, has been a most keen and sympathetic supporter of the college, and has given much good work to the furtherance of its objects. Through his death the college has lost one of its most able, enthusiastic, and successful teachers. In addition to many members of the general community, the Court and Senate of the college and a large number of students attended the funeral at the Happy Valley.

Plague Returns.

From the beginning of the year to June 12th 98 cases of bubonic plague with 87 deaths were recorded. No Europeans have been attacked. Plague is believed to be prevalent in Canton, but exact statistics are not available. The spring has this year been remarkably cool, and the rainfall less than the average. As the summer heat has now set in, if the experience of former years holds good, it is likely that the colony will escape very lightly this year.

Endowment Fund for Proposed University.

Down to June 12th 168,300 dollars had been collected locally, and a telegram has just been received from His Excellency the Viceroy of Canton stating that he will send 200,000 dollars whenever required. The news that Messrs. Butterfield and Sware had given the very generous donation of £40,000, equal in value to 420,000 dollars, was received with great satisfaction, and seemed at once to bring the proposed university nearer. It is expected that some of the other large European firms will also give handsome donations.

Founder's Day at Epsom College will be celebrated on Saturday, July 24th, and not Friday, July 23rd, as announced last week.

Dr. Charles Frederick France of Wigan and Dr. William Latham of Ashton-in-Makerfield have been enrolled on the commission of the peace for the County Palatine of Lancaster.

Correspondence.

CHARGES FOR MEDICINES AND DRESSINGS AT HOSPITALS.

Sir,—The determination of the House Committee of Westminster Hospital to follow in the footsteps of Guy's Hospital and more recently of the London Hospital in charging outpatients for medicines and dressings has been followed by a meeting between the chairman and local practitioners.

The sense of the meeting—small though it was—was very distinctly against the principle of charging at all, and I am glad to be able to record the fact that the majority of the medical staff of the hospital present supported the views of the general practitioners against the proposal.

It was admitted by the chairman that the only reason for the innovation was the financial embarrassment of the hospital, and I will summarize the main arguments advanced against and for the proposal by those present.

1. *That the proposal was against the interests of the local profession and the public interest*, in that the small sum to be charged will not be a deterrent to the class of patient now using the hospital, and that the local doctors could in no way benefit by such a charge.
2. That by charging for medicines and dressings, it would be an attraction to a superior class of patients to seek the advice and treatment of the hospital medical and surgical staff.
3. That in this way the hospital would be seriously competing with the neighbouring practitioners.
4. That such payments must inevitably lead to a relaxation of the inquiries by the lady almoner into the means and eligibility of those seeking hospital attendance.
5. That this competition would inevitably draw a large number of provident patients from the local dispensary and other provident clubs to the hospital, to seek the highly skilled advice of Harley Street doctors on a 3d. a week basis, degrading the status of the hospital staff and the reputation of the hospital.
6. That the charging of patients would hit very hard a class of poor very numerous in Westminster and having a distinct claim on the general hospital in their midst, and who are neither paupers or quite able at any time to pay the already low fees open to the general practitioners to charge.
7. That in this way, the Westminster Hospital, instead of co-ordinating its medical services with other medical agencies, both public and private, would be instrumental in throwing this class on to the Poor Law and thus indirectly adding to the local public and private burdens.
8. That subscribers to the hospital, and employers of labour, employees, and private benefactors, would not tolerate a system whereby the recipient of hospital relief had, in addition, to pay for medicines and dressings, and that in this way these subscriptions would fall off.
9. That the anticipated revenue expected from such an innovation would not amount to more than £250 to £300 per annum, which could not compensate for the loss from other sources, or the friction and bad feeling caused to the public and local professions, by such a change.
10. That it is no part of the policy of the committee to limit the out-patient department.
11. That this charity does not propose, in altering the fundamental basis of its present work, to give the public or local profession any representation on the Board of Management.
12. That the Executive Committee of the Westminster Division of the British Medical Association by an overwhelming majority passed the following resolution:

> "That such payment by patients as proposed is inadvisable, and further that, in the interests of hospitals and their work, it is advisable, as suggested by the Council of the British Medical Association, that local medical practitioners should nominate representatives for election to the Board of Management."

13. That in the knowledge and experience of one of the doctors present, the practice of Guy's Hospital in making similar charges had seriously competed with the local profession in the South of London, and had caused grave dissatisfaction.
14. That a similar experiment now in practice at the London Hospital had resulted in drawing away medical men from the neighbourhood of the hospital, and that the decision to make these charges was opposed by the majority of the medical staff of the hospital, and was against the opinion of the local practitioners.
15. That this particular time was most unfortunate for such a change, in view of the whole hospital system being now under review, in the light of the Poor Law Commission's report.

Having given generally the arguments formulated against the proposal, it is only fair to say that on the other side the following reasons were vouchsafed for the new departure:

1. The financial straits of the hospital.
2. That in the opinion of two of the medical men—one a member of the staff and the other a local practitioner—the

departure would result in a considerable revenue to the hospital and be appreciated by the patients, in that more value would be set upon such services, by abolishing the wholly gratuitous and charitable nature of them.

3. That in the opinion of another local practitioner the proposed change would do no harm to the local profession.

Of all the problems ripe for solution in the domain of medical politics, none is more urgent than the hospital question in all its bearings, of which Westminster Hospital and its new proposed policy is an apt illustration. When may we hope that the statesmanship of those who aspire to lead the profession in such matters may be applied whole-heartedly to the speedy and thorough settlement of the question, a settlement as imperative in itself, and because its present chaotic continuance is prohibitive of any real logical conclusions or just estimation of the relative value of either the Majority or Minority Reports of the Poor Law Commission, in the future improvement of medical services to the necessitous poor, the profession, the public, and the nation?

Let the coming Representative Meeting at Belfast deal with the whole hospital question in its entirety, instead of wasting time in the discussion of a few desultory and disjointed pious opinions, leading nowhere and convincing few, and they will have done something to justify and strengthen the British Medical Association and its work, and help the nation and Parliament to deal with the Poor Law Report.—I am, etc.,

London, S.W., July 12th. MORGAN I. FINUCANE.

THE REPORTS OF THE POOR LAW COMMISSION.

SIR,—Your leading article upon the Poor Law Medical Service and the Commissioners' Report has come to me, as it must have come to many other thoughtful members of our profession who have had some experience of provident dispensaries and contract practice, as a most unpleasant shock. It seems almost impossible to believe that our own JOURNAL should be so wrong-headed as to favour the scheme of the Majority of the Royal Commission, which would hand us over body and soul to be the slaves of the provident dispensaries.

Only those who have had experience of contract practice can realize the hopeless degradation of its servitude.

Coming events cast their shadows before, and there are much more substantial things than shadows to warn us that great changes have already begun which are pregnant with tremendous issues vitally affecting the future of our profession. I do not think that any careful observer can doubt that in the near future there will be a far smaller proportion of general practitioners than has been the case in the past. To be sure, there will still be room for the old-fashioned "family doctor," but the vast majority of those who enter the profession in the future will not be "family doctors," and what they will be depends in large measure upon the influence of our British Medical Association and its JOURNAL.

Two opposing tendencies have found expression respectively in the Majority and Minority Reports of the Royal Commission. The one tendency would put us under the heel of the provident dispensaries—a position compared with which that of the proverbial toad under a harrow would be enviable. The other tendency would transform those of us who do not choose general practice into self-respecting civil servants acting under the medical officer of health. Indeed, the medical officer of health would be the head of a staff of well-salaried medical officers, whose duty it would be to keep the community, or at least its poorer members, in a condition of thorough physical efficiency. No longer would the poor sufferer be hurried off with "a bottle," as is now the case. The causes of his trouble would be looked for, and wherever possible remedied. Thus, all the work which is now done—and, be it confessed, badly done—in the out-patient departments of our hospitals, in our provident dispensaries, and in the surgeries of our sixpenny *confrères*, would be done well and adequately remunerated.

From the point of view of the profession, what does it matter whether or no the scheme involves "gratuitous treatment for all applicants"? For us it should suffice that the work is well done and well paid for. It would rest with the community to recover the cost if they thought it desirable to do so.

You describe the Minority scheme as a "fairy palace," and dismiss it as a "pretty picture." But is it not better to have an ideal to aim at, even though we fall far short of it, than to be content with a condition of affairs which, at best, can only prove a degraded and degrading servitude? "Not failure, but low aim is crime."

In conclusion, let me express my sincere hope that "the contrast between the attitudes of the exponents of the two schemes" may not blind the rank and file of our profession, as it seems to have blinded you, to the relative merits or demerits of the two schemes.—I am, etc.,

Manchester, July 18th. E. VIPONT BROWN.

SIR,—May I be permitted to correct the statement of views attributed to me on page 163 of the JOURNAL for July 17th? The actual words of my memorandum on the Reports of the Poor Law Commission are as follows:

> It is doubtless true that the present elective basis of our local government has in some places proved insufficient to secure efficiency or to exclude corruption.

This is not quite so sweeping as the version given in your last issue, and it may be applied to local government generally, and not to the Poor Law only.—I am, etc.,

July 20th. ARTHUR DOWNES.

THE POSTMASTER-GENERAL AND THE MEDICAL PROFESSION.

SIR,—In connexion with a letter in the JOURNAL of July 10th on the subject of medical attendance on Post Office officials, may I be allowed to say a few words as an onlooker not directly interested?

The system of choosing one or more special practitioners for Post Office work is radically bad. The motive for doing so is plain. It is to ensure subordination on the part of the favoured employees, and to be able to lay as many burdens and restraints on their backs as the Postmaster-General may think fit to impose.

But, Sir, the principle of wholesale selection is, I hold, unfair both to the Post Office men and to the doctors left out in the cold. So much is this the case that to my knowledge a patient often elects to pay his own medical attendant rather than be compelled to accept the services of another whom he does not want.

Why should not a list of qualified practitioners be made up in every district, and the Post Office servant allowed to choose the doctor he prefers, the fees being fixed at so much a head per annum? This plan would be fair all round, and I am certain would work much more smoothly in practice than the present system. There is an element of slavery in the existing arrangement which must be hateful to every true and independent Briton.—I am, etc.,

WILLIAM BRUCE,
Late Member of the General Medical Council.

Dingwall, July 12th.

THE NEED OF AMALGAMATION OR FEDERATION OF POOR LAW OFFICERS AND ALLIED ASSOCIATIONS WITH THE BRITISH MEDICAL ASSOCIATION.

SIR,—There are several medical associations having separate organizations with the special object of maintaining the honour and interests of their members. They are maintained at considerable cost of time and money, but with practically *no results*. The following are a few of them: Factory, police, vaccinators, Poor Law, insurance, medical school inspectors, Post Office, medical officers of health, army and navy services, contract practice. All these and others ought to join the British Medical Association. Our Articles of Association allow us to do their work. In fact, already we are doing their work, and there are thousands of medical men outside the Association who are reaping the fruits of our efforts in all departments. We have a moral claim for their support. Let any one read the reports of the Council and of the several committees, particularly the Medico-Political and the Army and Navy Committees for this year, and for the past three or four years, and it will be a surprise to many who say, "What has the British Medical Association done for me?" Every week there is a whole page of "Warning Notices" in regard to "Contract Practice Appointments" in regard to England, Wales, Scotland, and Colonies, also dealing with club appointments, vaccination, medical officers of health, medical school inspectorships, hospital appointments, etc. Already we have seen

that the action of the Association has been successful in securing an advance from £200 to £250 for medical school inspectors. Unfortunately in one or two cases the candidates that ignored the Association's advice have got the appointment at £200 and had the advance of £50 without competition. We have an Association: with about 20,000 members in England, Scotland, and Wales, but there are about 10,000 outside. At present it is said that 90 per cent. are "Journal members"; well, they have good value for their money. But the Association: if all these allied bodies were to unite with us, we could be a most effective body in the maintenance of the honour and general good of the medical profession and the public.

We have only to see what is done by the National Union of Teachers to protect their members from injustice and insults. No schoolmaster can afford to be outside. In the teacher's difficulty they afford legal and financial help at once. Also the Education Department must consult with their officials before altering the code, etc. If we could get 5,000 or more members to join, we should be a great power; at present we are ignored by all departments of the Government, and we are unable to back up our members in cases of flagrant injustice in Poor Law appointments, etc., by concerted action and financial support. We have the Association, with its network of Divisions all ready to deal with these "bread and butter questions" which so vitally interest all Divisions. These are the questions that arouse interest and get good attendances. You have only to see what has been done in the South Wales dispute. May I suggest that a meeting be arranged by our Medical Secretary in Belfast to have a friendly discussion? There will be a large number present who are members of these various associations. If the thing is ignored I am certain of this, that these various bodies ought to unite and form a "National Medical Federation." *There is no need for this.* We are doing the work, and would do it very much better if we were all united. I do not press "Medical Defence," as there is a division of opinion on the matter.—I am, etc.,

Bacup, July 19th. JOHN BROWN, M.D.

THE BRITISH MEDICAL ASSOCIATION.

SIR,—So many useful sides of the British Medical Association come before the Representative Meeting, that any Representative may vouch for its undiminished and in fact growing activity. But far more than at these facts before every meeting, one stands astonished at the effects of the wonderful strain of the constant unselfishness of those who conduct the affairs of the Association; and it would be hard to find it surpassed or paralleled in any other society; the JOURNAL and its extraordinary influence; the great meetings and the consequent importance and respect shown to them; the voice that it exercises in every professional direction; and the beneficence, charity, and fairness towards new episodes—these are all real factors of advantage. Assemblages of men and nations have therefore expressed their admiration of and built up their own associations on lines copied from ours; of course copied, in this instance, in the spirit of support and not infringement. So many are these sides of help and possible assistance to doctors, that, if some particular desires of certain individuals have not already been fulfilled, even their view will very likely be reached in time through their further support. A considerable section outside the Association will always remain entirely absorbed in their own affairs, and prefer not to give their time to concerted action from any broad, general point of view which must govern the larger affairs committed to the charges of the British Medical Association. But many sections must feel satisfied at this unselfish service on many sides of our numerous officers and workers. And it is that communal lesson which every one of us has the opportunity to see operating when supporting the whole work of the Association. It gives an obviously good stamp to the medical doctors whom we constantly meet at the Divisional meetings, and that influence would be worth obtaining by non-members of the profession, who, as yet, have not felt the enjoyment of the benefits of joining the British Medical Association and experiencing that concerted and communal feeling which places them above the herd of mere self-seekers and traders. This brings into consideration the financial side, on which the work for so many years has depended, and which involves considerable expenditure. It is entirely those limits of the financial position which have already made us restrict some of the most pressing reports, parliamentary activity on bills, and other work of the Council.

But when the new Charter comes into force there will be two other preponderating inducements for new members to join the Association. These will be the members' provident and insurance schemes and medical defence. But to find funds to help these and other activities some expenses, especially report printing, might well be curtailed. Still if new expenses for new features are to come into force, probably some special subscriptions for these benefits will have to be imposed. I think, too, a reserve should be accumulated; whilst any subsequent widows' and orphans' funds should be kept quite separate for those who specially subscribe to them. As past members will be affected by the provident insurance fund, the opportunity is given to use the Branch funds fairly for this particular insurance reserve. It is ridiculous to accumulate funds at the Branches for no special purpose; and in the future, whatever the expenses of the Branches, new rules should be made to provide only sufficient for these expenses, the balances to be automatically returned partly into any central fund, but mostly into any new insurance fund for disabled members. Those reformers, then, who have spent their best energies to mould this great Association along these newer directions deserve well of the untold numbers of prospective members for their very clear insight in providing these newer inducements, so that any members of the medical profession may be soundly advised to join for their own interest and the common weal. After obtaining the Charter, or by some easy readjustment in the future, I think it would be most advantageous to retain the continuity of open interest in an Annual General Meeting, but on a smaller scale than the present one.—I am, etc.,

Bognor, July 10th. H. ELLIOT-BLAKE.

THE TREATMENT OF SCHOOL CHILDREN.

SIR,—Dr. Lauriston Shaw now states that the effect of the consultative principle is—

> That no patient shall be admitted as out-patient to a hospital unless he is sent by the man who has examined him and has treated him, and is willing to say what he has found and done, and is anxious to hear what the medical officer acting as a consultant thinks about the case, and is prepared at once or after such treatment has been carried out to continue the ordinary treatment of the case.

In this way the notified school child is made ineligible for hospital treatment. It is worthy of note that this interpretation of the consultative principle involves the exclusion also of the two classes of persons who have most claim for hospital treatment:

1. Those whose ailments are such that the general practitioner does not undertake them at all.
2. Those who for the time being, at any rate, are unable to pay a doctor.

Whether those who supply and those who administer hospital funds will accept Dr. Shaw's exposition of the "consultative principle" remains to be seen when it emerges from the region of pious opinions. Dr. Shaw also writes "that his proposition, however universally applied, will not prevent those mutual courtesies between members of the medical profession" which he calls "recommendation" and which I alluded to as "notification."

If the framers of the circular had only borne in mind that these courtesies between medical men are so well established as to constitute a right, they would not have put forward the "consultative principle" as one of the bars to the reception of the school child.

It is a matter of indifference whether notification be considered as a "recommendation" or as a "consultation," but it is satisfactory to know that there is a loophole for the school child in the meshes of the consultative principle which Dr. Shaw has so closely woven.

There is nothing, as Dr. Shaw suggests, of the personal in my failure to agree with him. I should very much regret any personal disagreement with Dr. Shaw, but my letters, of which this will be the last, were in answer to an official circular sent to me as a member of the Branch, and because the one clause in the circular which has been

defended has been defended by its President-elect.—I am, etc,

London, W., July 20th. SIDNEY PHILLIPS.

CONSULTATION AND THE TRANSFER OF PATIENTS.

SIR,—The proposed scheme for treatment of school children at charitable institutions is one of great importance, and in my opinion should be strenuously resisted by the profession. We are grateful to Dr. Lauriston Shaw for his services in the duel in your pages of the last three weeks; but especially we should be grateful for his reference to a grievance of which I have heard complaints for many years—the annexation of patients of one practitioner by another under the guise of "consultation."

The Association has been unable so far to define the term "consultant," but I trust that it will soon say distinctly that the present-day line of conduct of very many so-called "consultants" must be altered, and that it will enforce the laws of ethics upon each and all alike.

At the present day the atmosphere in and around the profession of medicine needs clearing. Let the Association take steps towards the cultivation of real honesty as well as nobility; of this last quality, methinks, we have heard a little too much. Let others speak out clearly as Dr. Lauriston Shaw has done; let this matter be threshed out in the Divisions, when plenty of evidence of the need of reform will be forthcoming, and many of us would be able to recognize our friends, which we are very anxious to do. Let us have less cant and more grit; then the public will benefit and will really appreciate us, and we as a profession will be able to have more respect for ourselves. —I am, etc.,

July 20th. REFORMER.

THE NATIONAL LIBRARY OF WALES.

SIR,—Speaking from the Presidential Chair of the National Eisteddfod at the Albert Hall, London, on the 16th June last, the Prime Minister, referring to the National Library of Wales, said:

> That National Library will, I trust, become the centre, the home, the gathering, and the training ground of Celtic scholarship in this country in the years that are before us. It already possesses, either actually or in promise, some of the most valuable manuscripts and books which it is possible to accumulate for those who desire to explore the antiquities of Celtic literature and Celtic history.

The Prime Minister went on to point out that it was a patriotic duty to assist the National Library and the National Museum by "adding to the treasures of which these great national institutions are to be the storehouse."

The National Library of Wales was founded by Royal Charter granted by H.M. the King in 1907, and entered upon the first stage of its existence on January 1st of the present year in a temporary building at Aberystwyth, a building admirably adapted for the storing and cataloguing of the collections pending the removal to the permanent building which will be erected on a magnificent site of four acres, close to the town of Aberystwyth, generously given for the purpose by the Right Hon. Baron Rendel.

A large number of valuable gifts of books, manuscripts, prints, and drawings has already been made to form the nucleus of the library, which at this moment contains the finest collection of Welsh MSS. in existence, including the famous Hengwrt and Peniarth MSS.; the collection of MSS. and Early Welsh books made by Moses Williams, afterwards the property of the Earls of Macclesfield; and a number of MSS. derived from other collections. The Hengwrt Library includes not only the oldest texts of Romance literature, but also one of the most valuable MSS. of Chaucer's *Canterbury Tales*, and other MSS. of great importance. The number of printed books already in the library is nearly 50,000.

We need, however, very many books in Celtic literature, and, even more, works of general reference, standard books in English and other languages, sets of transactions of literary, historical, and scientific societies; sets of the great periodicals, dictionaries, encyclopaedias, and many other books of various kinds which we have no funds to acquire.

The Charter provides for the circulation of duplicate books for educational and research purposes, and this will be an important feature of the work of the library. The case of Wales is exceptional. Its university consists of three national colleges, situated at Aberystwyth, Bangor, and Cardiff; while there are other important centres of educational activity, all urgently in need of the aid which it is hoped the National Library will be able to give to the higher branches of study. I wish particularly to state that, while the Celtic side of the library must be its strongest feature, yet the object for which it was founded is much wider. It is to be a National Library in the best sense, designed to afford in Wales that opportunity and encouragement for study and research hitherto wanting, and the lack of which has placed Wales at a disadvantage as compared with the other divisions of the United Kingdom and with other countries. England, Scotland, and Ireland enjoy great privileges under the Copyright Act, which Wales has not received, and can hardly now expect to receive. Three libraries in England, and one each in Scotland and Ireland, are entitled to one free copy of every book published in the British Islands, while five or six other libraries which formerly had the same privilege now receive an annual grant from the public funds in lieu of it.

It is contemplated to proceed as soon as circumstances will permit with the erection of permanent buildings, and plans have been provisionally adopted. A sum of £21,000 has been subscribed towards the building fund. To erect a suitable and worthy building will cost a far larger sum. The contributors to the fund include residents in all parts of Wales and Monmouthshire, and many residing in London and elsewhere, including Welshmen abroad. The fund is a truly national one, and is made up of sums ranging from £5,000 to 3d.

The quarrymen of Festiniog and neighbourhood, for instance, made up a list of 744 names for a contribution of £70 18s., while the teachers of Cardiganshire agreed to make up £100. In Carmarthen, Swansea, Cardigan, Aberayron, and other centres, large and small, committees were formed to collect subscriptions. The contributors to the fund fully represent the Welsh people, and their enthusiasm for the National Library is clearly shown.

The library has also received gifts from kindred institutions. The British Museum, the Library of Congress at Washington, the Smithsonian Institution, the Corporation of London, the John Rylands Library (Manchester), the National Library of Ireland, and the principal public libraries have each sent sets of their publications, while the University of Oxford has made a grant of publications of the Clarendon Press. Several eminent scholars at home and abroad have also sent gifts of books, in many cases spontaneously, and with a graciousness which greatly enhances the value of their gifts.

The library is managed by a court of governors and a council, to which bodies members are nominated by H.M. Privy Council, by the county and borough councils of Wales and Monmouthshire, the University of Wales, and the three university colleges. The maintenance is provided by a grant in aid from H.M. Treasury, which at present only provides for bare working expenses. No sum for purchasing the large number of necessary books is at present available.

I venture to ask those of your readers who feel an interest in this effort to bring within the reach of the residents in Wales the advantages which a National Library offers, to make gifts of books, or money for the book fund, and donations to the building fund.

Communications may be addressed to me at the National Library, Aberystwyth.—I am, etc.,

JOHN WILLIAMS, Bart, M.D., President.

July 12th.

CANCER RESEARCH.

SIR,—Dr. Skene Keith's article in your issue of July 17th, tends to show that, while the actual position of the cancer question in its relation to man has not been appreciably changed after the seven years' labour of the Cancer Research authorities, a considerable advance is taking place at the bedside.

Now I am quite aware that there are different opinions connected with *meum* and *tuum* in the various parts of this country, and I do not therefore wish to be pedantic; but I must remind Dr. Keith that the use of sodium cinnamate was first advocated by me, in a paper which

I published in the *Lancet* of July 12th, 1902. In this paper I referred to a paper of Dr. H. Batty Shaw in the *Journal of Pathology*, which dealt with the changes produced by the injection into the veins of cats of an emulsion of sodium cinnamate, and I based the introduction of the drug as a means of treating cancer, upon this work. Neither Dr. Morgan nor I could at that time find any reference to the use of this drug as a therapeutic agent; but we subsequently ascertained that, under the name of hetol, Landerer had introduced it in 1887 as a remedy in the treatment of tuberculosis. Dr. Morgan found that the drug was very insoluble, and that a 10 per cent. solution could only be obtained by prolonged boiling in glycerine.

I have at various times published reports on progress made, and on one occasion in the columns of the JOURNAL Dr. Skene Keith himself took part in a correspondence connected with the subject. Under these circumstances, recognizing the fact that imitation is the sincerest form of flattery, I am delighted to find that Dr. Skene Keith is obtaining satisfactory results. The progress of treatment is certainly definite in connexion with the disease, and sustained work must lead to further success. There appears to be no reasonable doubt that the treatment of the disease will be determined at the bedside and not in the laboratory. That great assistance has been obtained, and will always be obtained, from the general systematic work carried out in physiological laboratories admits of no doubt. By connecting such work with systematic treatment at the bedside nothing but good can be expected; it is, however, improbable that a course of laboratory work such as is in progress under the auspices of the Cancer Research authorities, and entirely divorced from practical work at the bedside, can succeed. The same general laws govern the life of all living cells, and such work as that of Sir Almroth Wright leads much more to a better understanding of the methods of treating disease and the action of remedies than the class of work which has been turned out by the authorities of Cancer Research.—I am, etc.,

Hatfield, July 19th. LOVELL DRAGE.

DISUSED INSTRUMENTS AND MEDICAL CURIOS.

SIR,—The Medical Missions Committee of the S.P.G. are very grateful to an anonymous donor for a case of surgical instruments; they are always very thankful for such gifts for use in mission hospitals and dispensaries abroad, or for the equipment of recently-qualified doctors about to proceed to mission stations.

They would also—for Exhibition purposes—be very grateful for gifts of *native* medicines, charms, or other articles used in the treatment of disease, the stock-in-trade of a Chinese doctor or chemist, or the dress, etc., of an African witch-doctor. The object of showing these or similar articles at Exhibitions is to contrast the apathetic indifference to human suffering, the heartless and stupid neglect of the sick, or the horrible cruelty to which they are subjected in lands where non-Christian beliefs hold sway, with the work of the medical (Christian) missionary to whom all human life is sacred, and who without distinction of caste or creed ministers with loving skill to all alike.

Gifts of such articles, accompanied by a brief description of their character and purpose, should be sent, with the name and address of the donor to the Medical Missions Department, S.P.G. House, 15, Tufton Street, Westminster, S.W.—I am, etc.,

E. H. MOSSE,
Chairman of the Medical Missions Department, S.P.G.

7, Henrietta Street, Covent Garden, W.C., July 19th.

THE ROYAL SOCIETY AND THE TESTS FOR COLOUR BLINDNESS.

SIR,—I am glad to see in the BRITISH MEDICAL JOURNAL of July 17th that Mr. Henniker Heaton has at last persuaded the President of the Board of Trade to inquire as to the methods of testing for colour blindness adopted by other countries. Mr. Churchill stated that one of the advantages of the test was that it could be applied by persons who possessed no knowledge of physiology or ophthalmology. I will deal with only one point—that is, the rejection of normal-sighted persons by this test. I stated to the Committee of the Royal Society in my evidence that normal-sighted persons were rejected by the Holmgren test. Sixty-four men who could not pass this test by the Board of Trade appealed, and twenty-seven were found to be normal sighted and to have been rejected wrongly. How many of those who failed and did not appeal were normal sighted? It is noteworthy that Germany has discarded the Holmgren test for the reason mentioned above. It is stated at the end of the official directions for testing for colour blindness that—

> The examination with Holmgren's wool test is not recommended, because it exaggerates the number of cases of genuine colour blindness. It is possible that merely colour weakness or a misunderstanding on the part of the patient has influenced the diagnosis.

—I am, etc.,

Hendon, July 17th. F. W. EDRIDGE-GREEN.

THE PROPOSED LEGISLATION IN REGARD TO ANAESTHETICS.

SIR,—The present situation with regard to this question requires the careful attention of the medical profession, and the remarks which follow have no relation whatever to the practice of anaesthetics as a speciality, but apply to the general practitioner of medicine in all parts of the kingdom.

Dr. F. W. Hewitt has undertaken a most important work in bringing forward a measure to ensure protection to the public from the risks of general anaesthetics in the hands of persons who have not received a complete medical training. His proposals have been opposed by a portion of the dental profession, partly on the ground that a very large number of medical practitioners are ignorant of the details and methods necessary for producing efficient anaesthesia for operations in the dental chair. In this statement they are perfectly correct, and this state of affairs has been due to the apathy and supineness of the medical student, who during his curriculum despises the idea of learning practical means of earning a livelihood from a secret conviction that he personally will be wafted into a consultant's chair where kneeling princes will pray for his advice. It is, however, absolutely essential that he should learn to give nitrous oxide and ether in the dental department of his hospital, so that he may become an efficient coadjutor of the neighbouring dental surgeons in that general practice which will have to support him and his family during his working life.

At the present moment, when the dental profession are making some claim to be more familiar with the use of nitrous oxide gas than the medical man, unless the latter opens his eyes to the fact that by reason of his medical knowledge and training, he is the only proper person to induce and conduct general anaesthesia in all circumstances and decides at once to attend a dental hospital or department to obtain a proper facility with the apparatus and in the procedures involved, he will find, during the next decade, that a serious rivalry in this respect has been established, and that he has cast away a valuable means of livelihood which is not only his birthright, but a duty which he owes to the public who become his patients.

A medical practitioner is in a false position who, for no other reason than a want of activity in learning how to control the gas or vapour for the purpose in hand, stands by while his patient is subjected to the action of drugs which are potent enough to cause insensibility at the hands of others whose knowledge of medicine and therapeutics is less than his own. Surely, if he thinks he is the proper person to be sent for to apply means of resuscitation in case of accident during anaesthesia, he should be still more the fit person to prevent the accident from arising. It should be his task to choose the most suitable anaesthetic according to the opinion he forms of the patient's state of health, to produce a complete anaesthesia, to discriminate during his administration of this anaesthetic between respiratory and circulatory symptoms, and to apply himself the remedial measures as required.

It is to be hoped that the teachers of anaesthetic administration in the hospitals of this kingdom will see to it that their pupils before qualification can properly administer nitrous oxide and ether for dental operations and that the general practitioners will bestir themselves so that their present inefficiency in this respect may recede into the past.—I am, etc.,

H. BELLAMY GARDNER,
Formerly Instructor in Anaesthetics at Charing Cross Hospital.

London, W., July 19th.

SIR,—I have striven in vain to discover some good point in Dr. Cooper's last effort to legalize unqualified medical practice. As Dr. Hewitt has already pointed out, it definitely authorizes dentists to administer anaesthetics during *any* surgical operation, though they have received no medical training whatever. Thus, a dentist may call in a surgeon to perform an abdominal section on a patient, while he (the dentist) administers chloroform; no general practitioner being present at all. The danger of such a possibility must be obvious to anybody who has the slightest knowledge of the many changes that may arise during anaesthesia, some of them almost imperceptible except to the practised eye and ear, but nevertheless capable of causing the death of the patient, or at least the failure of the operation, unless they be corrected before it is too late.

The bill, moreover, while it prevents all except medical men and dentists from administering drugs which will produce unconsciousness, permits anybody to produce analgesia by means of spinal or subcutaneous injections. The gross absurdity of such an arrangement must be patent to every one whose intelligence is above that of a member of Parliament or of a coroner's jury.

Clause 4 prohibits a medical practitioner from giving a certificate of death in the case of a person dying "while under the influence of an anaesthetic," but no definition is given of what is meant by the words which I have placed in inverted commas. Anaesthetics sometimes leave their effects behind them for some days; thus, cases are on record of patients who have vomited for five or six days after taking an anaesthetic. A lawyer might reasonably argue that the patient is therefore "under the influence of an anaesthetic" all this time, and consequently no death certificate may be given if a patient dies within a week after undergoing an operation! This clause, in addition, assumes that, whenever a patient dies during or shortly after an operation, the death must of necessity be due solely to the effects of the anaesthetic. The surgeon is exonerated from all blame, but the unfortunate anaesthetist must take his trial before the coroner and the aforementioned coroner's jury.

I can hardly imagine that the medical profession will allow such a bill to become law.—I am, etc.,

London, W., July 10th. ROWLAND W. COLLUM.

The Services.

THE ROYAL ARMY MEDICAL CORPS (TERRITORIAL FORCE).

Transport to General Hospitals.

THE issue of *National Defence* for July contains a paper by Dr. J. E. Bowser, of Penrith, Surgeon-Major in the Westmorland and Cumberland Yeomanry, drawing attention to the fact that hitherto no definite arrangements have been made for the transport of sick and wounded Territorial soldiers from field ambulances to general hospitals affiliated to the Territorial Force. It has been suggested that the Red Cross Society should undertake this duty, but it is pointed out that, even should the society be prepared to do so, the transport required does not exist. He makes various suggestions as to how the apparent gap in the arrangements might be filled. Abroad, the question of the conveyance of the sick and wounded by train has been carefully studied, but in this country the only provision is five ambulance coaches, built for the Regular Forces by the War Office in 1900, and one coach maintained by the Great Central Railway in connexion with its "break-down" train. The distances to be traversed in this country are so small as compared with those on the Continent that possibly it has hitherto been thought that the need would be sufficiently met by the use of guards' vans and other like rolling stock, having doors sufficiently wide to admit stretchers.

A MEETING of the Italian Congress of the History of Medicine and Natural Science will be held at Venice towards the end of September.

THE Italian Surgical Society will hold its twenty-second annual meeting on October 13th and following days in the Policlinico Umberto I, Rome. The questions proposed for discussion are: (1) The etiology and cure of cancer (to be opened by Professors Durante and Fichera); (2) the surgery of the pancreas (to be opened by Professors Muscatello and Tusini); (3) the surgery of the prostate (to be opened by Professors Ruggi and Roth).

Medico-Legal.

DIACHYLON PILLS.

A VERDICT of *felo de se* was returned by a Grimsby jury on July 7th in connexion with the death of a married woman with three children, who died about a fortnight after taking diachylon pills to produce abortion. Dr. E. H. Felton, the medical witness in the case, said that the practice was growing amongst Grimsby women, and was not confined to the poorer classes. He had no doubt that the town lost hundreds of children every year; he had himself attended five women in a single day for lead poisoning.

It is evident from this case, and from other information which reaches us from time to time, that the use of diachylon as an abortifacient has not diminished, but has spread to neighbourhoods where it was formerly unknown. Attention to the subject was first drawn in 1893 by Dr. Pope of Leicester (BRITISH MEDICAL JOURNAL, 1893, vol. ii, p. 9). Between that date and 1905 papers on the subject appeared from time to time, in the latter year a profusion of notes on the subject appearing in these columns. Early in 1906 existing knowledge as to the prevalence of the practice and its effects was summarized by Dr. Arthur Hall of Sheffield and Dr. W. B. Ransom of Nottingham in a joint paper (BRITISH MEDICAL JOURNAL, 1906, vol. i, p. 428). Meantime a subcommittee of the Medico Political Committee of the British Medical Association had been appointed to consider the subject. In April, 1906, a question was put in the House of Commons, but the Home Secretary replied that he was advised that inclusion of diachylon in the Schedule of Poisons was not likely to mitigate the evil.

As an abortifacient diachylon is uncertain in its action, but, as is well known, may quickly cause or produce serious and prolonged ill-health.

DRY SHAMPOOING BY CARBON TETRACHLORIDE.

AT an inquest in Kensington on July 15th, evidence was given as to the circumstances attending the death of a lady aged 29 while having her head dry-shampooed at Harrod's Stores. I was stated that she had been in very good health. After the shampooing had been in progress some two minutes she grew pale and looked faint, and then appeared to collapse. Medical assistance was called in and artificial respiration was performed, but death occurred.

The general evidence given was to the effect that the shampooing liquid contained carbon tetrachloride, and that it was applied from a bottle to the back of the head, and rubbed into the hair; meantime the customer's face was covered with a towel to prevent the fumes irritating the eyes, and an electric fan kept going to remove the fumes rapidly and obviate their affecting either customer or hairdresser. It was added that from 90 to 100 customers were shampooed in this fashion daily by the firm concerned in this case, and that during the six years that had elapsed since its introduction, some 20,000 or 30,000 persons had undergone the process. No serious result from its use had ever been known, but one case of fainting had occurred. The hairdresser who applied the lotion on this occasion had not previously applied it to the head of a customer, but had used it constantly in cleansing hair in a workshop where twenty assistants were employed. On this occasion, while the shampooing was in progress, the windows of the cubicle used were open, and the fan working normally.

Dr. Paul Jones of Walton Place said that he found the deceased's face discoloured and her pupils dilated. There was plenty of ventilation and an electric fan was working, but there was an odour of carbon tetrachloride. The electric fan had been introduced on his suggestion, as two years ago he had seen a lady who was faint and had a rapid irregular pulse for about an hour and a half after undergoing this shampooing process. He had also seen another healthy woman who became faint after having her hair dry-cleansed. He considered the process a safe one when due precautions as to fresh air were used.

Dr. B. H. Spilsbury, pathologist at St. Mary's Hospital, gave evidence that the deceased's body was healthy, but the heart was dilated and its muscles degenerated. The tonsils were enlarged, and the condition of status lymphaticus existed. Death was due to sudden heart failure from degeneration of the heart muscles, and possibly in part to the condition of status lymphaticus and inhalation of carbon tetrachloride. He did not think the deceased would have died had she not inhaled the tetrachloride vapour. The process might cause sudden death in a person with a weak heart, but if it could be ensured that the vapour was never inhaled by an unhealthy subject the process was absolutely safe. When tetrachloride was administered as an anaesthetic the percentage of deaths was about 1 in 20,000.

The jury returned a verdict of accidental death accelerated by the fumes of tetrachloride, and added a rider to the effect that Harrod's Stores were not justified in employing unskilled operators in applying this dangerous process.

Carbon tetrachloride is a heavy colourless volatile liquid, with a pleasant pungent, quince-like odour allied to that of chloroform. Its vapor was at one time suggested as a treatment of hay fever, and it was also occasionally used as a local application to relieve neuralgia. Commercially it is used as a solvent in place of chloroform, and also as a clothes cleaner, and for allied reasons, namely, its freedom from inflammability and the rapidity with which a thick head of hair can be cleansed by its use, it has grown in favour with hairdressers.

Nearly two years ago (see BRITISH MEDICAL JOURNAL, 1907, vol. 2, page 764) Professor McKendrick of Glasgow sent us a quotation from a communication made to him by a lady which, as was pointed out at the time, seemed to indicate, besides some risk to life, another disadvantage in the use of this liquid, namely, the temporary partial intoxication which shampooing by this process may induce. From Dr. Spilbury's statement it would appear as if carbon tetrachloride were commonly used as an anaesthetic for surgical purposes, but we are unaware of any data on which his calculation as to its fatality-rate could be founded, or of any anaesthetist who uses it, or of any institution at which it is employed. Its possible value as an anaesthetic was investigated by Simpson and others some fifty years ago, but it was put aside as unsuitable. Its general physiological action resembles that of chloroform, but it is slower and much more toxic. Lafont, Morell, Raboteau, and Professor Marshall of St. Andrews, more recent observers, take the same view of its unsuitability.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee.

A HOTEL DOCTOR'S FEES.

A CORRESPONDENT of considerable experience in connexion with medical practice in hotels informs us that he considers that the scheme described under this heading by a correspondent in the last issue of the JOURNAL (page 181) is open to serious objections. In the first place, he holds that the deduction of 25 per cent. to be made by the proprietor who guarantees payment of the doctor's fees is excessive and unfair to the doctor, since the proprietor can nearly always ensure payment if he chooses. Further, he thinks that the proposal might be very improperly used by unscrupulous persons, whether proprietors themselves or even practitioners desiring to get a footing. Our informant considers that no percentage or commission ought to be paid, and that the proprietor of an hotel or boarding house having the advantage of feeling certain that he can always obtain medical assistance at once for any visitor, and know that the interest of his establishment will be studied—as, for instance, by the prompt removal of any case of infectious disease, etc.—ought to be willing to assist the medical attendant to obtain his fee without making any deduction or charging commission.

Universities and Colleges.

QUEEN'S UNIVERSITY OF BELFAST.

Professor Redfern.

AT a meeting of the Senate held on July 15th the resignation of Professor Redfern, F.R.C.S., from advancing years and failing strength, was accepted with regret, and a resolution of regard and sympathy passed.

Recognition of Hospitals.

The Registrar submitted a list of hospitals which had made application for recognition and filled up schedules of particulars as regards their arrangements for clinical instruction. There are ten—the Royal Victoria, Mater Infirmorum, Union Infirmary, Belfast Hospital for Sick Children, Ulster Hospital for Children and Women, the Maternity Hospital, the Ophthalmic Hospital and Eye and Ear Dispensary, the Benn Ulster Eye, Ear, and Throat Hospital, the fever hospitals (the Belfast and the Union), and the District Lunatic Asylum. The Senate recognized these institutions as places of clinical study for medical students.

Clinical Lectures and Teachers.

The Registrar also submitted a report from the University Commission regarding the appointment of university clinical teachers and of university clinical lecturers, which was approved of.

UNIVERSITY OF LEEDS.

Degree Ceremony.

A CONGREGATION of the university was held on July 19th for the purpose of conferring honorary degrees on Colonel T. W. Harding, President of the Health Congress at present in session in Leeds, and on Sir James Crichton-Browne and Major Ronald Ross, who are attending the congress. The Vice-Chancellor, who presided, made a feeling reference to the great loss sustained by the university in the death of its first Chancellor.

Colonel Harding was presented by Professor Phillips, who made the following speech:

Mr. Vice-Chancellor, I present to you for the degree of Doctor of Laws the Chairman of the Health Congress now being held in this city, the freedom of which he has purchased with a great sum of public service. Thomas Walter Harding is a man so urbane that, like Cicero, we may rejoice that the *urbanus* does not become *rusticus* quod urbe exiit et animi causa rus amoenum habet, because he has withdrawn from Leeds, and become a country squire in Cambridgeshire. It is difficult, Mr. Vice-Chancellor, to compress into a few sentences the public record of one who has ever had a broad margin to his life, and whose maxim appears to have been, The way to live is to be alive. But when homage has been paid to his public spirit, that for which he would seem to deserve the highest praise is his recognition of the fact that beauty cannot exist without health, nor health without beauty. The work which he began as member of the Library and Art Gallery Committee he magnificently completed in the City Square, where, if his effigy does not appear, one is yet tempted to say, Si monumentum requiris circumspice. The work which he commenced as Chairman of the Sewerage Committee has prepared him for even more important service—for the membership of the Royal Commission on Sewage Disposal, for the chairmanship of the Belfast Health Commission, and of that congress of which this congregation may be regarded as a session. Arcem facere e cloaca—to treat the sewer as if it were a citadel was a jest to the ancients, to Colonel Harding it has been a chief care of municipal government. Honoured by the King, by the corporations of this city and of the borough of Cambridge, he now is to be admitted by you as a graduate of the university of whose Council he is already a member.

Sir James Crichton-Browne and Major Ronald Ross were presented by Professor A. S. Grünbaum, who spoke as follows:

Until a century ago the only treatment in asylums for the insane was iron chains. Then followed the period of treatment by relative liberty. But rational treatment with the aid of drugs, based upon actual observation of their effects, remained practically unknown in this country, and hardly anything was known about the anatomical basis of insanity at the time when, now more than forty years ago, Sir James Crichton-Browne initiated at the celebrated West Riding Asylum the systematic study of the pathology of insanity and of its therapeutic treatment. The resulting conspicuous successes and discoveries are evidence of the efficiency of his youthful directorate during ten years. The stimulus to microscopical research, to which branch the present director, Professor Bevan-Lewis, has made such brilliant contributions, and to physiological investigations which led to Ferrier's fundamental discoveries on cerebral localization, arose with him. As one of the original editors of *Brain*, his articles were distinguished by an admirabie delineation of clinical histories and pathological findings in unique and truthful word painting. Of permanent and conspicuous merit was his trenchant attack, in 1884, upon the educational life of boyhood, which was followed by an official report by him called for by the Government, on overpressure in school life. Every cause in public hygiene has been greatly furthered by his efforts and by his continuous insistance on the physiological principles of a healthy life. The familiarizing of the people with such knowledge has been a distinctive feature of the work of the Royal Institution, and due largely to the exertions of its distinguished Vice-President and Treasurer, whom I now present to you, Mr. Vice-Chancellor, for admission to the degree of Doctor in Science, *honoris causâ*, in this university.

Few of us realize that in India alone nearly five million lives are the annual tribute exacted by malarial fever. The task undertaken by Major Ross fifteen years ago was therefore no mean one—to discover how malaria passed from man to man, and how it might be stopped. After five years of patient labour, despite imperfect tools and lack of books, despite arbitrary removals from one end of India to the other, and despite many official hindrances and discouragements, he reached his goal. The mere systematic examination of the whole of many hundreds of mosquitos in itself is no small feat; to do so fruitlessly and in the face of long-drawn disappointment, yet with intuitive hope, patience, and consciousness of ultimate success, are characteristics of the true investigator, found only in those pioneers of knowledge of which each century produces but a handful. Well might he say, with Ovid, "Ardua molimur: sed nulla nisi ardua virtus"; truly may we say, with Bacon, of him that "to try things oft and never to give over, doth wonders." No less energy has Major Ross displayed in the practical application of his discovery. To these efforts the reduction of malaria and yellow fever, in many places almost to the vanishing point, bears eloquent testimony. Genius is ever manysided. A powerful novelist, a dramatist, an accomplished musician; further, a profound mathematician as well as an epoch-making discoverer—such is the man whom I present to you, Mr. Vice-Chancellor, for admission to the degree of Doctor in Science, *honoris causâ*, in this university.

At the same time the degrees of M.B. and M.Ch. were conferred on the following:

J. N. L. Thoseby (with first class honours), H. L. Flint and R. E. Smith (with second class honours), S. M. Hepworth, W. Shaw.

The Diploma in Public Health has been awarded to W. Carnes.

The Diploma in Dental Surgery has been awarded to H. R. Bentley and C. F. Salt.

The following candidates have been approved at the examinations indicated:

FIRST M.B. (PART II.).—L. H. Butler, C. H. Gozney, H. R. Knowles, H. A. Sinson, H. L. Taylor, J. Wilkinson, J. Wright.

SECOND M.B. (PART I.).—T. Elliott.

SECOND M.B. (PART II.).—H. Angel, J. H. Blackburn, J. Fergusson, G. W. L. Kirk, F. H. Kitson, G. P. Mellis, J. C. Metcalfe, M. Peto, J. J. Pickles, S. Samuel, H. P. Shackleton, H. W. Symons.

FINAL M.B. (PART I.).—C. S. Brown, J. P. Brown, J. B. Fisher, W. S. Hart, H. N. Ingham, J. B. T. Keswick, H. S. Raper, B. A. Slocombe, G. V. Stockdale, N. S. Twist.

UNIVERSITY OF LIVERPOOL.

Degree Day.

THE Chancellor, Lord Derby, presided at the ceremony of granting degrees which was held in St. George's Hall on July 10th. The procession to the dais included, besides representatives of the teaching bodies of the university, the Lord Mayor of Liverpool and representatives of the corporations of Blackpool, Crewe, Southport, Birkenhead, and Preston.

The Chancellor in a short address condoled with those candidates who had failed in the examination, and reminded them that nobody thought any the worse of those who failed, but despised those who, having failed, did not make another attempt to win. He advised those who had succeeded to have a definite aim and object in view, for according to the old proverb, it was as foolish to live without an aim as to shoot without an aim. He hoped that those who were leaving the university would carry with them a love of it, and of the county within whose borders it stood.

The Chancellor then conferred the honorary degree of Master of Arts upon Mr. Percy Edward Newberry and Mr. John Montgomery, and that of Master of Surgery upon Mr. W. Thelwall Thomas, surgeon to the Royal Infirmary, and Mr. Robert Jones, surgeon to the Royal Southern Hospital, Liverpool.

Ordinary medical degrees were conferred on the following:

M.D.—J. A. M. Bligh, L. Hutchinson, A. Hendry, H. E. Heapy, H. R. Hurter, T. W. Jones, J. M'Clennan, J. E. W. McFall, J. Graham Martin.

M.B., CH.B.—W. A. Daley (First-class Honours), K. J. C. Bradshaw (Second-class Honours); A. G. W. Owen (Second-class Honours), N. W. Steinberg (Second-class Honours), J. W. Cropper.

The Vice-Chancellor announced the list of awards in connexion with the university's fellowships, scholarships, studentships, prizes, and medals:

Robert Gee Fellowship in Anatomy, Richard Howard Mole, M.D.
Holt Fellowship in Physiology, Charles Henry Hasler Harrold, M.B., Ch.B.
Thelwall Thomas Fellowship, William Wright Mackarell, M.B., Ch.B.
Ethel Boyce Fellowship, William Robertus Pierce, M.B., Ch.B.
Holt Medal in Pathology, John Campbell.

The proceedings terminated with the playing of the National Anthem on the grand organ by Dr. A. L. Peace, and the pronouncement of the formula of dismissal, "*Salva Sit Universitas Nostra. Quod precantes consurgamus,*" by Vice-Chancellor Dale.

GRANT MEDICAL COLLEGE, BOMBAY.

THE report of the Principal, Lt.-Colonel H. P. Dimmock, I.M.S., for the year 1908-9 is commendably concise, and gives evidence of prosperity and progress. A new pathological laboratory, operating theatre, addition to the ophthalmic hospital and students' hostel, are in course of completion, and a new physiological building costing Rs. 30,000 is soon to be commenced. Chemical, bacteriological, and biological laboratories are still required, and facilities for teaching tropical medicine practically. Native graduates of the college take an active part in instruction in the capacity of tutors. At the close of the year 482 students remained under instruction. Of these 455 were male and 27 female; 57 were Christians, 274 Hindus, 129 Parsees, 14 Mahommedans, and 8 Jews; 97 new students joined the college, and 209 appeared for the L.M. and S. final examination, of whom 61 passed; 8 of these were female students; 44 military medical pupils were also under instruction, and three graduates of the college, after studying in the sanitary surveyor's class, were examined and passed. The list of scholarships and prizes is a long one, evidencing praiseworthy interest in the success of the college and its alumni on the part of both Europeans and natives. The fees received during the year amounted to Rs. 78,772.

CONJOINT BOARD IN SCOTLAND.

THE following candidates have been approved at the examinations indicated:

First Professional.—R. J. Croxford, G. A. Grandsoult, J. V. Duffy, W. C. Holburn, W. Bannatyne, A. Watson, R. C. Craig, J. Williamson.

Third Professional.—H. Chatterjee, W. W. Shorten, M. W. Rees, I. Galdemar, J. B. Mitchie, J. M'Cusker, J. M. Chrystie, R. H. Jones, M. C. Anderson, W. E. Hopkins, R. Anderson.

The following passed the Final Examination and were admitted L.R.C.P.E., L.R.C.S.E., L.F.P.S.G.—T. S. Douglas, W. E. Hopkins, W. J. Taugher, A. C. Livington, J. Young, E. W. Wilbourne, P. J. Taaffe, W. Browne, S. N. S. Aiyengar, G. M. MacLeod, E. D. Shroff, S. Rozdon.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examination indicated:

SECOND COLLEGE, JULY, 1909.—*M. J. Hillery, *T. P. H. Roberts, T. T. Buckley, N. S. Deane, H. J. Cotter, S. Griffin, R. Henry, W. H. Johnston, H. K. Kevin, R. Kenefick, T. Kennedy, J. Kearney, A. McGrath, F. J. McCarthy, M. Meehan, T. Mulcahy, J. C. O'Farrell, W. R. O'Keeffe, J. C. Ryan, I. M. Swanepoel, J. Walsh, V. J. White.

* Honours.

Obituary.

RAYNER W. BATTEN, M.D., F.R.C.P.LOND.,

CONSULTING PHYSICIAN TO THE GLOUCESTER ROYAL INFIRMARY.

DR. RAYNER W. BATTEN, one of the oldest and most distinguished members of the profession in Gloucester, died on July 15th; he had been in failing health for some time, but continued to work until two days before his death, which was due to cardiac failure. He was born at Devonport in 1835, the son of Mr. John Batten, and of Mary, youngest of the children of the Rev. William Winterbotham, a well-known Nonconformist minister, descended from a Lancashire family. Dr. Batten received his medical education at St. Bartholomew's Hospital, took the diploma of M.R.C.S. in 1857, and graduated M.B.Lond., being University Scholar in Medicine in 1858; he graduated M.D. in 1860 and became a Fellow of the Royal College of Physicians in 1889. He was successively house-surgeon and tutor at St. Bartholomew's Hospital and house-surgeon to the Hospital for Children, Great Ormond Street; afterwards for a time he held the post of assistant physician to the Metropolitan Free Hospital, but in 1867 was appointed physician to the Gloucester General Infirmary, a post which he held until 1899, when he was elected consulting physician. As physician he was an *ex officio* member of the General Committee of the infirmary, and in 1901 he became an elected member; he was also consulting physician to the Gloucester dispensary, and to the Berkeley Cottage Hospital.

In 1886-7 Dr. Batten was president of the Gloucester Branch of the British Medical Association, and in that capacity delivered an address on the physical training of girls, in which he showed himself to be in advance of the general opinion of the day, advocating not only drill and calisthenic exercises but also outdoor games for girls. Dr. Batten was for many years the representative of the Gloucestershire Branch on the Central Council of the Association, retiring in 1903. He was vice-president of the Section of Medicine at the annual meeting in Cheltenham in 1901, and many of those who were present at that meeting will remember the cordiality with which he joined in their reception at Gloucester on the last day of that meeting.

Dr. Batten took an active part in all religious and philanthropic movements in Gloucester; he was a fluent and graceful speaker, and was always ready to support a good cause. He held strong opinions with regard to temperance, was himself a teetotaller, and was a strong advocate of temperance. He was for many years one of the governors of the Gloucester Endowed Schools, and one of the Gloucester municipal charity trustees. He was a steward of the Three Choirs Festivals, and an active member of the Gloucester and District Devon and Cornwall Society. Dr. Batten was placed upon the Commission of the Peace for Gloucester in 1882, and at the court held on July 16th his death was referred to in sympathetic terms by the chairman, the clerk to the magistrates, the deputy chief constable, and a representative of the solicitors practising in the court.

Dr. Batten was twice married; his first wife—Miss Leonard of Clifton—died in 1870, and his second—a daughter of Mr. Samuel Bowly, the temperance reformer—in 1891. He leaves a family of one son—Mr. Lauriston Batten, K.C., and two daughters.

The funeral, which took place in Gloucester cemetery on July 17th, was preceded by a memorial service in Southgate Congregational Church, which was attended by representatives of the Corporation of Gloucester, of the Gloucester Royal Infirmary, and of many other bodies with which Dr. Batten was connected, and by a large number of members of the medical profession in the city and county.

MR. C. FIRMIN CUTHBERT, of Gloucester, writes: My personal knowledge of Dr. Batten was very considerable, having myself been in practice in Gloucester for very nearly twenty-five years. He was held in the highest regard both by the medical profession and by the public. I myself, as a surgeon, have on innumerable occasions derived the utmost benefit from his opinion as a physician, and I have been struck very often with the

knowledge he possessed and the power he had in coming to correct conclusions as to what could and should be done for the surgical benefit of those very cases in which a physician's opinion is at the present day so valuable for the protection and guidance of a surgeon. He could not have spent a life more appreciated by those around him, nor held greater honour and esteem at the time of his death by those amongst whom he lived and upon whom he had bestowed lifelong kindness.

CHARLES HARTLEY, M.R.C.S., L.S.A.

We regret to have to announce the death of Mr. Charles Hartley, of Bishop's Stortford, Herts, a member of the British Medical Association, who passed away on July 15th, aged 60 years.

He was the eldest son of the Rev. Charles Hartley, who was for many years the Rector of Stocking Pelham, Herts, and afterwards Incumbent of Little Dunmow, Essex. He was born at Porthleven, in Cornwall, and spent most of his early years at Stocking Pelham. He was educated at Felstead Grammar School, and after trying for a short time an uncongenial stool in a city office, he obtained his wish, and entered the medical profession, becoming a student at Charing Cross Hospital. Following the then usual custom, he became a pupil of the late Mr. Brickwell, of Sawbridgeworth, for whose memory he retained ever after an intense veneration. "What a teacher that man was!" was his invariable remark whenever he spoke of him. He obtained the diploma of M.R.C.S. in 1873, and that of L.S.A. in the following year; and, after holding the house-surgeoncy at Charing Cross, took a resident appointment at the Ventnor Hospital for Consumption, where he laid the foundation of that excellent knowledge of chest disease which he displayed in after-life.

From Ventnor he went to Lynton, North Devon, taking, at the age of 24, a widespread and arduous practice. His nearest medical neighbour was almost twenty miles distant, and his area of work included a large part of Exmoor. He was then a powerful and active young fellow, but both courage and endurance were often severely tried during his journeys on the moor. Shortly after settling at Lynton he married Miss S. M. Ward, the daughter of the Rev. John M. Ward, Vicar of Clapham, Yorkshire. After seven years' hard work in North Devon he removed to Great Dunmow, in Essex, carrying with him friendships which have proved lifelong. At Great Dunmow he practised for over ten years, and when he decided to go to Bishops Stortford the regret of his patients expressed itself in a largely signed and handsome testimonial.

Mr. Hartley's best work was, perhaps, done at Bishops Stortford, whither he removed in 1891. Here he practised for eighteen years, and here his brave and strong personality and the excellence of his opinion won the esteem and confidence of all classes of the community. He was a highly honourable and broad-minded man with a keen appreciation of human nature, of a cheery disposition, and with a remarkable gift of repartee.

Professionally, Mr. Hartley was a general practitioner of a very fine type. A keen observer and possessed of excellent judgement, he was remarkably able in diagnosis; his opinion was invariably formed only after careful and thorough examination. He was always on the look-out for "something behind" (to use his own expression), and he never allowed haste or pressure of work to interfere with due deliberation. While his formed opinion was seldom at fault, he always welcomed assistance when in difficulty, and these characteristics combined to make him emphatically a "safe" man. In treatment he was particularly happy. A continuous study of the idiosyncrasies of his patients, and of the adaptability of various forms of treatment to their individual needs, not only made his routine practice eminently successful, but enabled him in many instances to prophesy the result of a line of treatment suggested by others with an accuracy that appeared intuitive. Apart from all this, he was emphatically the friend of his patients, loyally respecting their confidences, and entering into their griefs and troubles with a depth of sympathy that was apparently inexhaustible.

For the last ten years of his life Mr. Hartley was greatly troubled with multiple chronic arthritis of a most painful nature; yet, lame and suffering, he steadily continued work. Even when, during the last two years of his life, attacks of abdominal pain, for which no cause could be found, were added to his troubles, he still made light of his sufferings and worked with his usual thoroughness to the very end. On June 29th he was seized with acute obstruction of the bowels, and with a cheerful courage which was characteristic of him, acquiesced in immediate operation. When he learnt that, although the obstruction had been relieved, a malignant growth existed in the splenic flexure, which was, in the opinion of his advisers, removable, he faced without flinching the prospect of a second operation, with full knowledge of the risk it entailed. The growth was successfully removed a fortnight later, but he never recovered from the shock, and died within forty-eight hours.

He leaves a widow, son, and daughter. He was greatly beloved, and is deeply mourned.

JOSEPH POWELL SWANWICK, M.R.C.S., L.S.A.,

WINSFORD, CHESHIRE.

Mr. Swanwick, of Winsford, who died on July 14th, was born at Prestbury in 1825, went to school there, and later at Alsager. He studied medicine at King's College, London, spending his first year in the house of Mr. (later Sir) William Bowman, and the rest in the college itself.

About 1847 he was apprenticed to Dr. Lallemand, of Macclesfield, from 1849 to 1851 was "clerk to the physicians" of the Manchester Royal Infirmary, then married Miss Harriette Pritchard, of Macclesfield, and settled in practice at Over (Winsford, Cheshire), afterwards at Congleton till his enforced retirement in 1865 owing to serious injury in a fall from his horse. After an invalid period he took the house and farm in which he died, as tenant of St. John's College, Cambridge.

He was an exceedingly capable and hard-working practitioner, full of resource, enterprise, good judgement, and operative address. He was a good mechanic and schemer of building operations; gradually enlarged and altogether improved his cramped house and farm buildings; made his farm pay, though knowing at first nothing of farming, and usually got in his hay before his neighbours. With a natural aptitude for drawing, he taught himself in middle life to paint in oils and water colours, converted his granary into a studio, and made many drawings of Egyptian scenery derived from three winters spent in that country with travelling friends. He was a capable critic and instructor in pictorial art, in mechanical work and plain building operations, and also in farming; after his retirement from medical practice, though keeping up his interest in it in amateur fashion, he actually led the life of a farmer and artist. His younger of two surviving sons is a professional artist of reputation. One son died in West Africa, aged 22. His wife, a brilliant pianist, died at the end of 1893. Their two daughters and the sons inherit the artistic tendencies of the parents, and the sons their father's mechanical skill.

His energetic life was spent in overcoming obstacles, some formidable. Having been suddenly deprived of health and strength, he found both again in country life and unceasing work, supplemented by a reasonable amount of refined and intellectual leisure.

We note with regret the announcement of the death on July 16th of Lady Priestley, widow of Sir William Priestley, the well-known obstetric physician to King's College Hospital. Lady Priestley herself took a great interest in public health work, and did useful service by popularizing in articles contributed to the general press a knowledge of the epoch-making researches of Pasteur. She was the daughter of Robert Chambers, the Edinburgh publisher, and one of the authors of the *Vestiges of Creation*. Throughout her long life she maintained an interest in science and all intellectual pursuits, and numbered among her friends many of the most distinguished men of literature and science during the later part of the Victorian era.

The degree of M.D. has recently been conferred by the University of Brussels upon Edward Abraham Coorey, of Moratuwa, Ceylon, and Miss Amy Blanche R. Periton, of Bangalore.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

ASTHMA asks for information about the treatment of asthma by injections of antidiphtheria serum.

LOCUM desires to know which is the best local anaesthetic, its strength and quantity, to use in operating upon a recto-vaginal fistula, a general anaesthetic being contraindicated.

THE PUPILS IN APICAL PNEUMONIA.

MR. JAMES H. MARTIN, M.B., writes: As an undergraduate student some years ago I pointed out to my then clinical teacher that in one of his patients suffering from right apical pneumonia the right pupil was larger than the left. After the crisis the pupils were equal. Since then I have seen on several occasions in apical pneumonia, right and left, dilatation of the pupil on affected side. I shall be pleased to hear if any reference to above is to be found in the literature on pneumonia or the eye.

REFRACTION.

S. E. A. asks: Is there a cheap and effective apparatus for enabling a workhouse medical officer to prescribe spectacles without the usual trial glasses?

*** No apparatus other than the usual trial case can be recommended, and to use this of course requires experience.

FLIES.

S. E. A. asks: How much formaldehyde 10 per cent. solution should be used in a room 16 ft. square to keep away flies? Does it matter if the windows are open?

*** If formaldehyde 10 per cent. solution is used for the purpose of destroying flies two pints should be sprayed daily over a room 16 ft. square. The windows should be closed. Those who have tried this method of getting rid of flies have not been very successful.

ANSWERS.

RETINITIS PIGMENTOSA.

E. G.—So far as we have been able to discover, there is nothing definite in literature about the treatment of retinitis pigmentosa by means of the high frequency currents. The usual electrical treatment in cases of retinitis pigmentosa is by means of a constant galvanic current. Fair success has, it is said, been obtained by passing about 3 milliampères for five minutes twice a week. An electrode with a soft sponge is applied to the eye and connected with the positive galvanic pole, while the negative electrode may be placed over the cilio-spinal centre.

A DOUBTFUL VERDICT.

E. M. B.—The details supplied are not sufficiently precise to justify an expression of any opinion beyond the statement that the verdict attributing the death of the young woman to the results of a burn received some five weeks earlier seems to have been wrong. Mudar juice, a substance resembling which was said to have been found in the stomach, is obtained from calotropis, usually *C. procera*. The milky juice is a violent local irritant, which, when taken internally, acts as an emeto-cathartic, and may produce a fatal gastro-enteritis. In India it has long been used, not only for suicidal purposes, but to kill newly-born female infants, and also to produce abortion.

LETTERS, NOTES, ETC.

SECRET REMEDIES AND PROPRIETARY PREPARATIONS.

H.—Eureka Consumption Cure appears to consist principally of eucalyptus gum (red gum), with a moderate proportion of wood tar and a little eucalyptus oil. When distilled with steam some volatile oil is obtained, but in amount too small for analysis; it shows no evidence of any other oil than that of eucalyptus. The distillate also contained a trace of acid, probably acetic acid from the wood tar.

"H." has forwarded two bottles sent to a patient suffering from an obscure form of spinal meningitis, by a German "wonder doctor" called Ast. Our correspondent informs us that his patient tells him that the directions are to send a few hairs cut from the back of the head of the patient, giving only the name and address, but not mentioning the disease or age; in a few days medicines with directions are received, accompanied by a bill for 2.50 marks, or perhaps 3 or 4 marks. The medicines, he says, come sometimes from one chemist, sometimes from another, but always from Hamburg or its neighbourhood. One of the stories the patient has been told is that on one occasion a girl with movable kidney sent some hair, and received a mixture to take and a plaster to stick on the loin. Another story is that a doctor sent a hair from a corpse, and in three days received a note saying, "My medicine is no good for the dead." The contents of the two bottles have been submitted to qualitative examination, with the following results:

No. 20.—This is an alcoholic preparation containing no alkaloidal substance and no salts; it contains emodin, indicating that it is a preparation of one of the drugs containing this substance (rhubarb, senna, cascara, etc.), and the general characters indicate that this drug is probably rhubarb. Aromatic substances are also present, a preparation of cardamoms being recognized. No evidence was obtained of any more active drugs than those named.

No. 23.—This is an alcoholic preparation containing a considerable proportion of oil of spearmint, with some menthol, and apparently a little camphor, and a trace of green colouring matter. No evidence was obtained of any other substance.

DR. F. ZERNIK has published a further contribution on the composition of certain proprietary preparations, etc. (*Deut. med. Woch.*, May 20th, 1909).

Franz Lammersdorf's universal chilblain cream, a Hanover preparation, to be applied thinly on the chilblain and covered with wool and a bandage, and renewed every twenty-four hours, was found to consist of about 25 grams of extract of malt. Dr. Zernik points out that this is a curiously original medicament for chilblains.

Jehnol is advertised as differing from all other preparations in its power of allaying all forms of toothache, including the most severe. It is a fluid, and three or four drops are to be applied on a piece of cotton-wool to the cavity of the tooth. A small bottle containing about 3 c.cm. of an alcoholic solution of oil of cloves and other ethereal oils, and possibly also cajeput and camphor, and coloured green with chlorophyll, costs 30 pfennigs, that is, about 3½d.

Leistner's tablets are also sold at 30 pfennigs a box. They are advertised as being certain in disturbances of digestion, constipation, etc. Each tablet, which weighs on an average 0.36 gram, consists of powdered cascara sagrada bark and starch.

Dr. med. R. Kleinertz's Quidestin is advertised in a most catchy manner. The advertisement includes the following passages: "What is it? It is a comfort for those about to become mothers." The directions for use are as follows: A tablespoonful of the extract is to be placed in a thick walled small cup or other similar vessel, and this is placed in a pail. The fluid is then lighted, and the patient is to allow the fumes to play around her abdomen and legs, until they are thoroughly warmed. This is to be repeated twice a day for the last six weeks of pregnancy. The composition is given as blackthorn, camomile, eucalyptus, hoarhound, shepherd's pouch, and cheese rennet extracted in alcohol. The analysis showed that quidestin is a weak extract of various indifferent vegetables, including eucalyptus and camomile in 90 per cent. spirit. Apart from the impossibility of the fumes being of therapeutic value, Zernik points out the highness of the price, 5s. per litre bottle, sufficient for three weeks.

Roller's powder for epilepsy is supposed to be a remedy for epilepsy, chorea, hysterical attacks, cramp of the stomach and of the chest, etc., and is sold by the Dresden "Diakonissen-anstalt" for M 3.40 the box. The package contains three 5-grams powders wrapped up in sealed paper capsules. The powder is black, and has the odour of a rancid animal oil. Analysis proved that it consisted of partially carbonized animal substance, which yielded 20 per cent. of brown substances soluble in ether. The preparation is said to be made by burning magpies shot on twelve nights following Christmas. This use of incompletely carbonized animal substance for epilepsy is an ancient superstition.

Sprengel's herbal juice, is a preparation which Bernhard Sprengel of Hanover claims to be harmless, and as it consists of blood purifying herbs and roots, and not a secret remedy, he recommends it for all sorts of diseases, especially for diphtheria, trichinosis, whooping-cough, etc. The bottle (which costs M.1.25, about 1s. 3d.) contains about 30 c.cm. of a turbid brown fluid of acid reaction. It contains powdered jalap bulbs, suspended in a watery extract of frangula (or some similar drug), to which alcohol and liquorice have been added. Its jalap content renders the free sale of this preparation unlawful in Germany.

TREATMENT OF INGROWING TOENAIL.

DR. PHILIP MIALL (Consulting Surgeon to the Bradford Infirmary) writes: Dr. Tytler, in the JOURNAL of July 17th, proposes a great improvement on the erasion sometimes recommended. But is any operation required? Long ago I found that it could be dispensed with, and published the method in the BRITISH MEDICAL JOURNAL. It was widely used, and I saw it described in an American daily paper. I paint the part with a thick, treacly solution of tannic acid, fresh from the maker, an ounce to 6 drachms of water, or lb.j to ℥xij. If not fresh it will not dissolve in such proportion. It should be applied night and morning, and if it accumulates a poultice may be necessary to clean the surface, and the tannin applied again. Two or three days will cure any case. I have heard that lead nitrate answers the same purpose. Perhaps Dr. Tytler's lead and opium lotion would be enough without compression.

THE CAUSATION OF CANCER.

DR. GILCHRIST (Nice) writes: In an Essai de Pathologie Evolutioniste, read before the Nice Congress of Climatotherapy in 1904, I made, on page 18 of my paper, the following references to the subject of this letter. Without excluding cancer itself, which, according to this manner of regarding the question, would be, not only an attribute of the reproductive function, but the sign of regressive heredity. . . . It has been said (Woods Hutchinson, *Studies in Human and Comparative Pathology*, page 273) that cancer is a "gland-abortion." From the point of view we have adopted, this notion assumes an unexpected significance. It tends to confirm the conception that general pathology, as is currently held of the relations of ontogeny to phylogeny, is an abridgement, so to speak, of aberrant phylogeny. On page 19 I followed with a series of remarks that will serve, I hope, for such an illustration of my general opinion as Dr. Marsden kindly demands (BRITISH MEDICAL JOURNAL, July 10th, No. 119). From the pathological point of view: We would find the *trait* that unites the different varieties of tuberculosis: the best guide for that being to study the avian respiratory system and to follow the aërial cavities which communicate throughout, and everywhere distribute a gaseous flow. In effect, to the thoracic chamber, containing a comparatively vascular, dense, and adherent lung, would correspond the initial congestion, the tendency to haemoptysis, the adhesive pleurisy and concomitant emphysema of the pulmonary disease; to the osseous cavities would correspond the tuberculous affections of the bones, joints, and periarticular tissues, while to the diaphragmatic and abdominal reservoirs would correspond the mesenteric invasion, peritoneal tuberculosis, and infiltrations of the uro-genital tract. The conception is admittedly speculative, but where else except in these evolutionary principles would we find so systematic an explanation of apparently dissociated processes? And if we add to the list I have quoted such lesions as tuberculous fistula in ano and similar destructive disease of the larynx, where else will we discover so suggestive a theory? For "recentness and instability" go together, says Woods Hutchinson (loc. cit., p. 308) and the organs in question are recent phylogenetic acquisitions (batracians and reptiles have no epiglottis and monotremes no cloacal differentiation), and correspondingly vulnerable as we know. I am afraid that Dr. Marsden's demand for a special committee of the British Medical Association to review the evidence in favour of cancer arising from natural causes is based upon too hopeful expectations. Might not Herbert Spencer have formulated a similar requisition when he wrote that the natural reproductive powers of the fixed cells of the body tissues are held in check by the influence of the entire organism, so that any relaxation of this control implies the imminence of disease? What we require is the more general recognition that pathology is essentially a branch of biology. We want more books like Le Dantec's *Nature and Origin of Life*, like Wiedersheim's *Structure of Man*, and Wesley Mills's *Animal Physiology*. How little this need is understood will be seen by a circumstance I may be allowed to relate. Wishing to investigate the question of the renal secretion in the animal series, I ordered the *Tracté de physiologie comparée des animaux* of a well-known professor in the Paris Ecole Vétérinaire. In something like 2,000 pages I found under twenty devoted especially to the subject of urinary secretion. There were four comparative analyses of urine, the first being that of a man. The document was taken from Lehmann, and a very cursory examination of its characters showed that the subject was essentially abnormal. The secretion was clearly that of an uricémique.

THE METROPOLITAN BRANCH ELECTIONS.

Dr. G. CRICHTON (Kensington) writes: Permit me to supplement your notice of the Metropolitan Counties Branch elections and to point their moral. As regards the vice-presidents the method is perfect. The precedent is continued of electing to the first place the retiring secretary. For the other three, three Divisions nominated and elected a nominee; one Division nominated two, and a choice had to be made. So in the election to the Central Council Westminster had two candidates, and the choice fell on the sitting member. The principal of local or topographical representation is thoroughly secured. The three who headed the poll were no doubt elected by nearly *the same supporters* and would under any system have secured election (except the new method threatened—not, we hope, to be carried). There were, then, three for two places. Five candidates issued a joint manifesto the week before the election, thus constituting for the occasion a party. The odd thing is that the party carried the election. No doubt the City Division did not use the right electioneering methods. They proposed five candidates and put their own man at the foot of the list. This election was one emphatically to favour local representation. If any Division, or two or three Divisions acting together, could have got only 95 supporters for any one whomsoever they chose (about 4 per cent. of the numbers of the Branch) they would have elected him. If members show so little interest in the matter, why should they be considered in rearranging areas? The general lack of interest is no doubt due in part to the weakened authority of the Central Council under the Charter. As to the use of the method of proportional representation generally, with awakening interest in the special objects of the Association will come an increased resort to this the only sufficient way of electing responsible and stately government.

JUNE SUNSHINE IN GUERNSEY.

DR. HY. DRAPER BISHOP (M.O.H. Guernsey) writes: The accounts of the weather in England during June have been such dismal reading, that it may be interesting to state that during the month 232 hours of sunshine have been recorded in Guernsey. From the beginning of the year until the end of June the total of sunshine was 1,032 hours.

A CAEHD MILLE FEALTAGH.

To Our Medical Visitors from Oversea.

Och, shure, an' ye're welcome, comrades all,
From over the blue say's wave;
Welcome to bed, an' board, an' dhrink,
Far more than yez iver can lave.

We've oceans here for all that come,
An' more for them that stay;
Whatever yer special taste may be
You've only just to say.

Ov course we're famed for talkin' big,
But we always mane what we think,
An' wher's the thruer hearts than ours,
That were iver warmed up wid drink?

In English smoke an' Scottish mist
Ye've been doin' yer very best;
'Tis late, poor sowls, but right ye are
To come over here for yer rest.

The sun himself does come this way
When to Murphy's arms he's goin'—
'Tis his snorin' that throubles the say
From Cape Clear to Innishowen.

This is the land ov pure delight,
'Tis a trate to the weary mind,
To see how *we* meet our throubles,
An' just let them go on behind!

Och, 'tis the jolly bhoys we are,
We're right good fellows all through;
Both bhoy an' girl, both old an' young,
Shure we'll laugh wid an' laugh *at* you!

But don't, O don't, make yer spaches long,
An' just lave yer papers behind,
We'd rather show yez over the place
Than sit listenin' to yer "wind."

Wind's all right when it sweeps the hills,
An' right when it ruffles the say,
But it gives a dale ov throuble
When it rises an' wants to stay!

We've our faults like other people,
An' by that same token have you,
But we're both the salt ov the earth,
An' the light, an' the mornin' dew!

We're the pick ov the whole creation,
The wine that gladdens the earth,
The sweet that flavours the bitter,
An' the joy that mollifies mirth.

We're *there* when life's just about dawnin',
An' often we're there at its close,
We're its best friends between times,
From the top ov its head to its toes.

What would the world do without us,
English, Scottish, Irish, and all?
We're the swatest fruit iver plucked
Since the wan that was pulled at the Fall.

So, comrades, here's to yer healths,
An' here's to our own health too!
For a thousand years may yez live,
An' may we live longer than you!

Dr. ADAIR, Belfast.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication: and, if not paid for at the time, should be accompanied by a reference.

N.B.—It is against the rules of the Post Office to receive letters at *Postes Restantes* addressed either in initials or numbers.